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THE NORMALIZED CUMULATIVE BLACKBODY FUNCTIONS, THEIR APPLICATIONS IN THERMAL RADIATION CALCULATIONS, AND RELATED SUBJECTS

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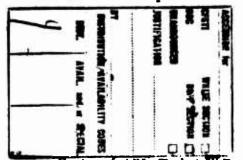
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Foreword

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Abstract

Rapid calculation of the radiant power and quantum flux emitted by a blackbody source involving any wavelength interval is made possible by the derivations in this paper which introduces the "normalized cumulative blackbody functions" formulated by the author. Thus, in contrast to conventional blackbody tables, all different radiation temperatures and any wavelength interval are covered by one function which can be compiled in one simple table of very modest volume. The final expressions using these cumulative blackbody functions are uncomplicated equations which can be solved by slide rule operations or, for higher accuracy, by using a desk calculator. Further, the paper introduces an unambiguous symbolism for expressing power and quantum flux radiated by a blackbody source and for expressing performance factors such as conversion yields of broadband radiation detectors. Also equations for calculating the difference in power and quantum flux for blackbody sources against a blackbody background are derived. Illustrative examples for typical situations are calculated.

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I. INTRODUCTION

Since processes involving radiation are quantized, that is, energy is emitted, absorbed, and converted by discrete amounts, no matter what spectral region is involved, the ultimate limitations on detection are determined by unavoidable statistical variations in the number of quanta emitted and absorbed and in the number of new primary species caused by the conversion process of the detector. An information signal transmitted by radiation, in order to be detectable, must constitute a temporal or spatial deviation in the number of quanta which overcome sufficiently the statistical fluctuations introduced by the occurring processes. One must realize that, even when assuming an ideal nonfluctuating source (ideal coherence) and ideal energy conversion, in practice the attenuation by absorption in the transmission path will introduce statistical fluctuations. When using the conventional photometric and radiation units, one can easily overlook the limitation in detection as imposed by the statistical variations of the number of quanta which must be considered for threshold conditions. Therefore, to have a unit system for light intensities, etc., which in itself expresses the discrete number of quanta involved would constitute a considerable convenience for threshold detection calculations. However, since one usually deals with illumination with a broad spectral distribution rather than with monochromatic illumination, a useful system must indicate not only the number of quanta involved, but also the spectral distribution. In the field of thermal and visible radiation detection, where one deals mainly with blackbody radiation distributions, the system can be made useful and unambiguous by stating the wavelength boundaries between which the number of quanta are counted and by identifying the radiation distribution within these boundaries with a temperature, called "radiation temperature". This temperature is equivalent to the temperature of an ideal blackbody source that would furnish radiation with such a distribution. Similarly, then, for attenuators, converters, detectors, etc. one should state in addition to the transmission factors, conversion factors, etc. the radiation temperature and spectral boundaries for which the performance factors are valid. Evidently, the radiation temperature of the source and the temperatures valid for the data concerning the attenuator, etc., as well as their spectral regions must be identical for finding the output of the involved elements by simple multiplication of their performance factors

by the power or quantum flux incident on the elements. Here, the term "radiation temperature" is used rather than the term "color temperature" used in photometry, because the word "color" should be restricted to visible radiation as detected by a three-detector arrangement having the human tri-stimulus response.² In the absence of such a quantized unit system for radiation, one should at least have convenient expressions which allow rapid calculation of the power and quantum flux occurring for the different situations. It is thus the purpose of this paper to derive equations and to provide suitable procedures for achieving these rapid calculations and thus making convenient the finding of numerical blackbody values for any situation possible. This is mainly achieved by introducing the "normalized cumulative blackbody radiation function" formulated by the author, which can be used with appropriate expressions to compute radiant power and quantum flux emitted by a blackbody source of any given temperature and for any spectral interval. Furthermore, as will be shown in some of the examples of this paper, the radiation temperature and the spectral range considered will be introduced for radiation data and performance factors by indicating this data above and below the dimension respectively, i.e.,

300°K Quanta m⁻² 3.4um to 4um

This will avoid ambiguity and assure that corresponding radiation and element performance data are multiplied by each other for finding the element output values. Then, by use of the expressions and tables of this paper in connection with suitable optical equations and performance factors (identified as stated above), the limitations in the detection of thermal radiation, which are of special interest in thermal image detection, may be obtained by relatively uncomplicated calculations for any situation.

For the sake of clarity the derivations will commence with well-known equations, leading to final expressions which can be easily evaluated by slide rule operations or, for higher accuracy, by using a desk calculator.

II. <u>Derivation of Normalized Blackbody Functions for Spectral Radiance and Spectral Quantum Flux</u>

A solid at any temperature T above 0° K, emits radiation with a continuous

spectrum having an intensity $I_e(\lambda,T)$ with a distribution as governed by Kirchoff's law of radiation,³ i.e

$$I_{\bullet}(\lambda,T) = I(\lambda,T)\eta_{a}(\lambda,T), \qquad (1)$$

where $I(\lambda,T)$ represents the spectral intensity distribution governed by Planck's law of radiation and $n_a(\lambda,T)$ is the spectral absorption factor for radiation incident to the surface of the solid. Obviously, for given temperatures $I_e(\lambda,T)$ reaches its maximum values for $n_a(\lambda,T)$ =const=1, which by definition is attributed to the so-called "blackbody", since an "ideal black surface" of a body absorbs all incident radiation.

The "spectral radiant emittance" (radiant flux per unit of area per unit of bandwidth, where radiant flux = radiant energy per unit of time = radiant power) $N*(\lambda,T)$ in W m⁻³ of a blackbody surface as given by Planck's law of radiation^{3,4} is expressed by the well-known equation.

$$N^*(\lambda,T) = \frac{c_1}{\lambda^5(e^{c_2/\lambda T} - 1)} = \frac{3.7405 \times 10^{-16}}{\lambda^5(e^{1.43879 \times 10^{-2}/\lambda T} - 1)}.$$
 (2)

Since an ideal blackbody, by definition, is a perfectly diffuse radiator, i.e. the "radiance" (radiant flux per unit projected area per unit solid angle) is constant in all directions, Lambert's cosine law applies. Thus, one finds by integration that

$$N^{*}(\lambda,T) = N_{0}(\lambda,T) \int_{0}^{\pi_{I_{2}}} 2\pi \sin(\theta) \cos(\theta) d(\theta) = \pi N_{0}(\lambda,T), \qquad (3)$$

where θ is the angle between the direction of propagation and the normal to the emitting surface and $N_0(\lambda,T)$ is the "spectral radiance" (radiant flux per unit projected area per unit solid angle per unit bandwidth) in W m⁻³sr⁻¹. Thus, from Eqs. (2) and (3),

$$N_{O}(\lambda,T) = \frac{N^{*}(\lambda,T)}{\pi} = \frac{1.1906 \times 10^{-16}}{\lambda^{5}(e^{1.43879 \times 10^{-2}/\lambda T} - 1)} = \frac{1.1906 \times 10^{-16}}{\lambda^{5}(10^{6.24859 \times 10^{-3}/\lambda T} - 1)}$$
(4)

Integrating Eq. (2) from $\lambda=0$ to $\lambda=\infty$ will yield the "radiant emittance" (radiant flux per unit of area) N_D^* in W m⁻² of a blackbody and summed over all wavelengths, as given by the Stefan-Boltzmann law, ^{3,4}i.e.

$$N_p^*(T) = 5.6697 \times 10^{-8} T^4$$
 (5)

Again, dividing Eq. (5) by π and using Eq. (3) one obtains the radiance $N_p(T)$ in W m^{-2} sr⁻¹ of a blackbody surface. Thus,

$$N_p(T) = \frac{N_p^*}{\pi} = 1.8047 \times 10^{-8} T^4 \sim 1.805 \times 10^{-8} T^4$$
. (6)

Differentiation of Eq. (2) yields the wavelength $\lambda_{\rm opt}$ in meters at which a blackbody radiation has its peak intensity, as given by Wien's displacement law:3,4

$$\lambda_{\text{opt}}(T) = 2.8978 \times 10^{-3} T^{-1}$$
 (7)

Replacing λ in Eq. (4) by $\lambda_{\rm opt}$ of Eq. (7) yields the maximum value of the spectral radiance $N_{0,\lambda_{\rm opt}}(T)$ in W m⁻³ sr⁻¹ emitted by a blackbody. Hence

$$N_{0,\lambda \text{opt}}(T) = \frac{c_1 T^5}{\pi (2.8978 \times 10^{-3})^5 (e^{c_2/2.8978 \times 10^{-3}} - 1)} = 4.0941 \times 10^{-6} T^5, \quad (8)$$

Forming the ratio of $N_0(\lambda,T)$ and $N_{0,\lambda opt}(T)$ for their values as defined by Eq. (4), one obtains

$$\eta_{R}^{\delta}(\lambda,T) = \frac{N_{O}(\lambda,T)}{N_{O,\lambda cont}(T)} = \frac{\lambda_{opt}^{5}(e^{c_{2}/T\lambda}opt - 1)}{\lambda^{5}(e^{c_{2}/T\lambda} - 1)} . \tag{9}$$

Using Eq. (7) in the exponent in the numerator of Eq (9) for $\lambda_{\rm opt}$, and in the denominator for T yields

$$\eta_{R}^{\#}(\lambda_{s}\lambda_{opt}) = \left(\frac{\lambda_{opt}}{\lambda}\right)^{5} \frac{(e^{c_{2}/2.8978\times10^{-3}} - 1)}{(e^{c_{2}/2.8978\times10^{-3}\lambda/\lambda opt} - 1)},$$
 (10)

Letting

$$\lambda/\lambda_{\text{opt}} = \lambda_{\text{n}}$$
, (11)

where λ_n will be called the "normalized blackbody wavelength", which obviously is dimensionless, and by replacing the constants by their numerical values, Eq. (10) may be rewritten and is introduced as the "normalized blackbody spectral radiance function", $n_R(\lambda_n)$. Thus,

$$n_{R}(\lambda_{n}) = \frac{1.42325 \times 10^{2}}{\lambda_{n}^{5}(e^{4.96511/\lambda_{n}} - 1)} = \frac{1.42325 \times 10^{2}}{\lambda_{n}^{5}(10^{2.15632/\lambda_{n}} - 1)}.$$
 (12)

Fig. 1 and Table 1 show the normalized blackbody spectral radiance function of Eq. (12), which evidently, for any temperature, represents the ratio of the blackbody spectral radiance occurring at $\lambda = \lambda_n \lambda_{opt}$ to that occurring at λ_{opt} . Combining Eqs. (7) and (11) yields for

$$\lambda_{\rm n}(\lambda, T) = 3.450894 \times 10^2 \lambda T$$
 (13)

Multiplying Eq. (8) by $n_R(\lambda_n)$ yields the blackbody spectral radiance $N_0(\lambda_n)$ in W m⁻³ sr⁻¹. Hence

$$N_0(\lambda,T) = 4.0941 \times 10^{-6} T^5 \eta_R(\lambda_n)$$
 (14)

This equation, in connection with Eq. (13) and Table 1, then permits convenient and rapid calculation of the spectral radiance obtained from any blackbody surface, as shown in the following example.

Example 1.

A blackbody has a temperature of $300\,\,^{\circ}\text{K}$. Using Eq. (7), the maximum of the radiation is found to be at

$$\lambda_{\text{opt}} = \frac{2.8978 \times 10^{-3}}{300} = 9.6593 \times 10^{-6} \text{ m}.$$

The radiance N_p (summed over all wavelengths) is given by Eq. (6) with

$$N_p = 1.805 \times 10^{-8} \times 300^4 = 1.46 \times 10^2 \text{ W m}^{-2} \text{ sr}^{-1}$$
.

As explained in the introduction, quoting numerical values of polychromatic radiation data often has little value, if ambiguity is not avoided by also indicating the distribution of the radiation and the wavelength boundaries. An attempt is made to rectify this situation in this paper by introducing the method of writing the radiation temperature and the spectral range involved above and below the dimension, respectively, as shown in this example. For $\lambda = 3.86~\mu m$ (window through the atmosphere), λ_n , from Eq. (13), is

$$\lambda_n = 3.4509 \times 10^2 \times 3.86 \times 10^{-6} \times 300 \sim 0.4$$

Then, from table 1, $n_{\rm R}$ = 0.0565, thus, from Eq. (14), for the spectral radiance

$$N_0 = 4.0941 \times 10^{-6} \times 300^5 \times 0.0565 = 5.6 \times 10^5$$
 W m⁻³ sr⁻¹, 3.86 μ m

Evidently, the values obtained from Eq. (14) can be used directly for a fairly accurate calculation of the radiance, for a finite bandwidth, only if the bandwidth is appropriately small. Assuming in this example a bandwidth of 0.1 μ m, which is sufficiently small for a modest accuracy, and assuming an area of 1 mm², one finds, by using the relationship of Eq. (3), that the radiant power N_F from this area and within the spectral interval 3.81 μ m to 3.91 μ m, is

$$N_F = \pi \times 5.6 \times 10^5 \times 10^{-7} \times 10^{-6} \sim 1.8 \times 10^{-7} \frac{300^{\circ} \text{K}}{\text{W}}$$

As stated before, for computations for thermal image detection, etc., it is important to know the number of quanta involved. Modifying $\eta_R(\lambda_n)$ by the wavelength dependency of energy will yield a function which is usable for all radiation temperatures as a means of calculating the relevant number of quanta per pertinent units as a function of λ . Since the "spectral quantum radiance" (quantum flux per unit of projected area per unit solid angle per unit bandwidth) $Q_0(\lambda,T)$ in quanta s⁻¹ m⁻³ sr⁻¹ of a blackbody surface is given by

$$Q_{O}(\lambda,T) = \frac{N_{O}(\lambda,T)}{E_{O}(\lambda)} = \frac{N_{O}(\lambda,T)}{hc/\lambda} , \qquad (15)$$

where $E_Q(\lambda)$ is the quantum energy, h is Planck's constant $(6.6256\times10^{34}~\mathrm{Js})$ and c is the velocity of light $(2.997925\times10^8~\mathrm{m~s^{-1}})$, Eqs. (9) to (12) may be used to write for $\eta_Q^\#(\lambda_n)$, which represents the ratio of the spectral quantum radiance at wavelength λ to that at λ_{opt} ,

$$\eta_{Q}^{\#}(\lambda_{n}) = \left(\frac{N_{O}(\lambda_{n},T)}{hc/\lambda_{opt}}\right) / \left(\frac{N_{O},\lambda_{opt}(T)}{hc/\lambda_{opt}}\right) = \frac{N_{O}(\lambda_{n},T)\lambda_{opt}}{N_{O},\lambda_{opt}(T)\lambda_{opt}}$$

$$= \eta_{R}(\lambda_{n})\lambda_{n} = \lambda_{n}^{-4} \frac{1.42325 \times 10^{2}}{(e^{4.96511/\lambda_{n}} - 1)}$$
(16)

However, in Eq. (16) the maximum of $\eta_Q^\#(\lambda_n)$ is not at $\lambda_n=1$ as is the case for $\eta_R(\lambda_n)$. The peak of $\eta_Q^\#(\lambda_n)$ can be found by differentiating Eq. (16) and equating to zero. Thus, taking $\lambda_n=\lambda/\lambda_{\rm opt}$ and letting the numerator in Eq. (16) be K_1 and the exponent 4.96511 in the denominator be K_2 one may write:

 $\frac{d\eta_Q''}{d\lambda} = K_1 \lambda_{opt}^4 d\{\lambda^{-4} (e^{K_2 \lambda_{opt} \lambda^{-1}} - 1)\} = 0$

4 - $(e^{K_2 \lambda_{\text{opt}} \lambda^{-1}} - 1)^{-1} K_2 \lambda_{\text{opt}} \lambda^{-1} e^{K_2 \lambda_{\text{opt}} \lambda^{-1}} = 0$

$$\frac{\lambda}{\lambda_{\text{opt}} K_2} = \frac{e^{K_2 \lambda_{\text{opt}} \lambda^{-1}}}{4(e^{K_2 \lambda_{\text{opt}} \lambda^{-1}} - 1)}$$
(18)

Letting

$$K_2 \lambda_{\text{opt}} \lambda^{-1} = \Omega, \tag{19}$$

(17)

Eq. (19) may be written as

$$\frac{1}{\Omega} = \frac{e^{\Omega}}{4(e^{\Omega}-1)} = \frac{1}{4(1-e^{-\Omega})}$$
 (20)

and may be solved for Ω by successive approximations, which yields

$$\Omega = 3.92069$$
. (21)

When this value and the numerical value of K_2 are inserted into Eq. (19) one finds with the aid of Eq. (11) the numerical value of λ_n which will be referred to as λ_n , χ_{max} and is the normalized wavelength of the spectral peak of the number of quanta per pertinent units emitted by a blackbody surface. Thus, calling χ_{peak} in meters the wavelength of this spectral peak,

$$\lambda_{\text{n,Qmax}} = \frac{\lambda_{\text{peak}}}{\lambda_{\text{opt}}} = \frac{K_2}{\Omega} = \frac{4.96511}{3.92069} = 1.266387.$$
 (22)

Solving Eq. (16) for $\lambda_n = \lambda_{nQmax} = 1.26639$ yields

$$\eta_{O}^{\#} = 1.119379.$$
 (23)

By dividing $\eta_Q^\#(\lambda_n)$ with this value, $\eta_Q^\#(\lambda_n)$ may be normalized into $\eta_Q(\lambda_n)$ which is introduced as the "normalized blackbody spectral quantum flux function"

$$\eta_{Q}(\lambda_{n}) = \frac{\eta_{Q}^{*}(\lambda_{n})}{1.119379} = \frac{1.27146 \times 10^{2}}{\lambda_{n}^{4}(e^{4.96511/\lambda_{n}} - 1)},$$
 (24)

and which is depicted by the graph in Fig. 1 and shown by Table 1.

At λ_{peak} , the spectral quantum radiance $Q_{o,\lambda_{peak}}(T)$ in quanta s⁻¹ m⁻³ sr⁻¹ as determined by Eqs. (15), (14), and (22), is given by

$$Q_{0,\lambda peak}(T) = \frac{N_{0,\lambda peak}(T)}{E_{0,\lambda peak}} = \frac{4.0941 \times 10^{-6} T^{5} \eta_{R,\lambda n,Q peak}}{1.9863 \times 10^{-25} / \lambda_{peak}} = \frac{4.0941 \times 10^{-6} T^{5} \eta_{R,\lambda n,Q max}}{1.9863 \times 10^{-25} / 1.26639 \lambda_{opt}} = 2.61023 \times 10^{19} \lambda_{opt} T^{5} \eta_{R,\lambda n,Q max}.$$
(25)

Replacing then $\eta_{R,\lambda n,Qmax}$ by its numerical value using Eq. (12) or Table 1, and $\lambda_{\rm opt}$ by Eq. (7), Eq. (25) may be rewritten as

$$Q_{0,\lambda peak}(T) = 2.61023 \times 10^{19} T^5 \times 0.88392 \times 2.8978 \times 10^{-3} T^{-1} = 6.68586 \times 10^{16} T^4.$$
 (26)

Multiplying Eq. (26) by $\eta_Q(\lambda_n)$, because of its definition as expressed by Eqs. (16) and (24), yields the blackbody spectral quantum radiance $Q_0(\lambda_n)$ in quanta s⁻¹ m⁻³ sr⁻¹. Thus,

$$Q_0(\lambda,T) = 6.68586 \times 10^{16} T^4 \eta_0(\lambda_n)$$
 (27)

Example II-

Assuming the same given data as in Example I, and using Eq. (27) and Table I, yields, for the spectral quantum radiance,

$$Q_0 = 6.6859 \times 10^{16} \times 300^4 \times 0.020196 = 1.094 \times 10^{25}$$
 $\frac{300^{\circ} \text{K}}{\text{Quanta}}_{3.86 \text{µm}}$ s^{-1} m^{-3} sr^{-1} .

Then, again for a bandwidth of 0.1 μm and an area of 1 mm^2 , by using the relationship of Eq. (3), one obtains a quantum flux

$$Q_F = \pi \times 1.1 \times 10^{25} \times 10^{-7} \times 10^{-6} = 3.4 \times 10^{12} \stackrel{300 \text{ o} \text{K}}{\text{Quanta s}} = \frac{1}{3.81 \mu \text{m}} = 3.91 \mu \text{m}$$

III. <u>Derivation of Normalized Cumulative Blackbody Functions for Radiant Power</u> and Quantum Flux.

The accuracy with which the radiant power and the corresponding quantum flux can be determined by using Eqs. (14) and (27), as shown in Examples I and II, depends on the effective bandwidth, since fairly accurate results can only be obtained from a trapezoidal approximation based on the milpoint value of the appropriate interval for a rather narrow bandwidth. Thus, for broader bandwidths,

one would at least have to divide the appropriate interval into a number of sufficiently small subintervals and then obtain the effective value η_{eff} by forming an average from the individual center values of the η 's of each subinterval. Thus

$$\eta_{\text{eff}} = \frac{1}{m} (\eta_1 + \eta_2 + \eta_3 + \dots + \eta_m),$$
 (28)

where m is the number of subintervals used. However, a more practical solution will be introduced, which consists of a modification and extension of Eqs. (14) and (27) by employing a correction factor γ which depends on the appropriate bandwidth interval λ_{nmin} to λ_{nmax} . When using Eqs. (14) and (27) for a situation with a finite bandwidth, i.e. without considering the effective n's as dependent on the $\Delta \lambda_n$, the product $\eta \times \Delta \lambda_n$ obviously differs from the effective area $\eta_{eff} \Delta \lambda_n$ under the curve. If one determines the integral values between abscissa values from 0 to λ_n for $\eta_R(\lambda_n)$ and $\eta_Q(\lambda_n)$, introduced as the "cumulative blackbody radiant power function" $\eta_R^\star(\lambda_R)$ and the "cumulative blackbody quantum flux function" $\eta_0^-(\lambda_n)$ respectively, one can find the true value of the area under the curve for any bandwidth by subtracting the one appropriate extremum value from the other. Then, the correction factor γ_g , evidently, is given by the ratio of the true area $[\eta_{\beta}^{*}(\lambda_{nmax}) - \eta_{\beta}^{*}(\lambda_{nmin})]$ to the approximate area $(\lambda_{nmax} - \lambda_{nmin})\eta_{\beta}(\lambda_{n})$ where β in this and later expressions stands uniformly either for R, meaning the radiance function or for Q, meaning the quantum flux function, whichever applies. Thus

$$\gamma_{\beta}(\lambda_{n},\lambda_{nmax},\lambda_{nmin}) = \frac{\left[\eta_{\beta}^{*}(\lambda_{nmax}) - \eta_{\beta}^{*}(\lambda_{nmin})\right]}{(\lambda_{nmax} - \lambda_{nmin})\eta_{\beta}(\lambda_{n})} = \frac{\Delta \eta_{\beta}^{*}(\lambda_{nmax},\lambda_{nmin})}{\Delta \lambda_{n}\eta_{\beta}(\lambda_{n})}.$$
(29)

The "cumulative blackbody radiant power function" $\eta_R^*(\gamma_n)$, by using Eq. (12), is defined as

$$\eta_{R}^{*}(\lambda_{n}) = \int_{0}^{\bar{\lambda}_{n}} \eta_{R}(\lambda_{n}) d\lambda_{n} = 1.423245 \int_{0}^{\bar{\lambda}_{n}} \lambda_{n}^{-5} (e^{4.96511/\lambda_{n}} - 1)^{-1} d\lambda_{n}.$$
 (30)

The "cumulative blackbody quantum flux function" $\eta_Q^{\bigstar}(\lambda_n)$, by using Eq. (24), is defined as

$$\eta_{Q}^{\bullet}(\lambda_{n}) = \int_{0}^{\bar{\lambda}_{n}} \eta_{Q}(\lambda_{n}) d\lambda_{n} = 1.27146 \int_{0}^{\bar{\lambda}_{n}} \lambda_{n}^{-4} (e^{4.96511/\lambda n} - 1)^{-1} d\lambda_{n}$$
 (31)

The above integrals, Eqs. (30) and (31), may be expressed in terms of Debye functions⁵ and evaluated with the aid of appropriate series. Table 2 and Fig. 2 show the numerical values of the cumulative blackbody functions $\eta_R^*(\lambda_n)$ and $\eta_O^*(\lambda_n)$.

Dividing Eqs (30) and (31) by the limiting value of the cumulative functions (Table 2) will yield the "normalized cumulative blackbody radiant power function" $\eta_R^{\dagger}(\lambda_R)$ which expresses the ratio of the cumulative radiant power at λ_R to that at $\lambda_R = \infty$, i.e.

 $\eta_{R}^{\dagger}(\lambda_{n}) = \frac{\eta_{R}^{\bullet}(\lambda_{n})}{1.52081} \tag{32}$

and the "normalized cumulative blackbody quantum flux function" η_Q^{\dagger} which expresses the ratio of the cumulative quantum flux at λ_n to that at $\lambda_n = \infty$, i.e.

$$\eta_{\mathbf{Q}}^{\dagger}(\lambda_{\mathbf{n}}) = \frac{\eta_{\mathbf{Q}}^{\bullet}(\lambda_{\mathbf{n}})}{2.49666} . \tag{33}$$

Table 3 and Fig 3 show the numerical values of Eqs. (32) and (33), in which Tables 3a and 3b show a condensed number of values of $\eta_{\beta}^{\dagger}(\lambda_n)$ and Table A lists not only an extensive number of values, but also the values of the difference between the listed steps, i.e. $[\eta_{\beta}^{\dagger}(\lambda_n) - \eta_{\beta}^{\dagger}(\lambda_{n-1})]$, in order to facilitate (34) rapid interpolation. Dividing Eqs (30) and (31) with the values obtained for λ_n = 1 will yield the cumulative blackbody peak weight factor for the radiant power, $\eta_{\alpha}^{\dagger\dagger}$, which expresses the fraction of the radiation in reference to the amount of radiation emitted for λ_n = 1, i.e.

$$\eta_{R}^{\dagger\dagger}(\lambda_{n}) = \frac{\eta_{R}^{\star}(\lambda_{n})}{0.380285} \tag{35}$$

and the "cumulative blackbody peak radiation weight factor for the quantum flux", $\eta_{\beta}^{\dagger\dagger}(\lambda_n)$ which expresses the ratio of the cumulative amount of the quantum flux at λ_n to that at $\lambda_n=1$, i.e.

$$\eta_{Q}^{\dagger\dagger}(\lambda_{n}) = \frac{\eta_{Q}^{\star}(\lambda_{n})}{0.2659}$$
 (36)

Table 4 and Fig. 4 show the numerical values of Eqs. (35) and (36). Multiplying Eqs. (14) and (27), respectively, by γ_{β} as given by Eq. (29) in order to obtain for the spectral radiance $N_{0,\gamma}(\lambda_n,T)$ in W m⁻³ sr⁻¹ and

the spectral quantum radiance $Q_{0,\gamma}(\lambda_n,T)$ in Quanta s⁻¹ m⁻³ sr⁻¹ correct effective values when a finite bandwidth is involved, results in

$$N_{O\gamma}(\lambda_{n},T) = N_{O}(\lambda_{n},T)\gamma_{R}(\lambda_{n},\lambda_{nmax},\lambda_{nmin}) = \frac{4.0941 \times 10^{-6} T^{5} \Delta n_{R}^{*}(\lambda_{nmax},\lambda_{rmin})}{\Delta \lambda_{n}}$$
(37)

and

$$Q_{O\gamma}(\lambda_{n},T) = Q_{O}(\lambda_{n},T)\gamma_{Q}(\lambda_{n},\lambda_{nmax},\lambda_{nmin}) = \frac{6.6859 \times 10^{16} T^{4} \Delta \eta_{Q}^{*}(\lambda_{nmax},\lambda_{nmin})}{\Delta \lambda_{n}}.$$
 (38)

If γ_{β} of Eq. (29) is rewritten in terms of the normalized cumulative blackbody functions η_{β}^{\dagger} then, by using Eqs. (32) and (33), Eqs. (37) and (38) may be rewritten as

$$N_{O\gamma}(\lambda_n,T) = \frac{6.2263 \times 10^{-6} T^5 \Delta n_R^{\dagger}(\lambda_{nmax},\lambda_{nmin})}{\Delta \lambda_n}$$
(39)

and

$$Q_{OY}(\lambda_n,T) = \frac{1.669 \times 10^{17} T^4 \Delta n_Q^{\dagger} (\lambda_{nmax}, \lambda_{nmin})}{\Delta \lambda_n}.$$
 (40)

Since the corrected spectral values of Eqs. (37) through (40) express the effective values per unit bandwidth, it is necessary in order to obtain values for the true bandwidth (that is the values for the radiance and the quantum radiance) that these equations be multiplied by $\Delta\lambda$. For this operation Eq. (13) may be rewritten as

$$\Delta \lambda = 2.8978 \times 10^{-3} T^{-1} \Delta \lambda_n$$
 (41)

and multiplied by Eq. (39), which yields the "radiance" $N_{O,\Delta\lambda}(T)$ in W m⁻² sr⁻¹ for a given bandwidth $\Delta\lambda$. Thus,

$$N_{0,\Delta\lambda}(T) = 1.8043 \times 10^{-8} T^4 \Delta \eta_R^{\dagger} (\lambda_{nmax}, \lambda_{nmin}), \tag{42}$$

Multiplying Eq. (40) by Eq. (41) yields the "quantum radiance" $Q_{0,\Delta\lambda}(T)$ in Quanta s⁻¹ m⁻² sr⁻¹ for a given bandwidth $\Delta\lambda$. Thus,

$$Q_{0,\Delta\lambda}(T) = 4.8371 \times 10^{14} T^3 \Delta n_0^{\dagger} (\lambda_{nmax}, \lambda_{nmin}).$$
 (43)

However, when the values of $N_{O,\Delta\lambda}$ and $Q_{O,\Delta\lambda}$ are given, Eqs. (42) and (43) cannot be solved explicitly for T, since in order to find $\Delta\eta_\beta^\dagger$ the knowledge of the value of T is required. Then T must be found by successive approximation by using Eqs. (42) and (43).

_xample III

The numerical values of the radiance and the quantum radiance of a black-body surface with T = 300°K for the wavelength interval 3.4 μm to 4.0 μm (window in the atmosphere) is needed.

From Eq. (13)

$$\lambda_{\text{nmax}} = 3.45089 \times 10^{2} \times 4 \times 10^{-6} \times 300 = 0.414107$$

and

$$\lambda_{\text{nmin}} = 3.45089 \times 10^2 \times 3.4 \times 10^{-6} \times 300 = 0.351991$$

Thus, by using Table 3 in connection with appropriate interpolation one finds for λ_{nmax} , that $\eta_{Rmax}^{+} = 2.13242 \times 10^{-3}$

$$\eta_{Qmax}^{\dagger} = 4.37836 \times 10^{-4}$$

and for λ_{nmin} , that,

$$\eta_{\rm Rmin}^{\dagger} = 4.02515 \times 10^{-4}$$

$$\eta_{Qmin}^{\dagger} = 0.71313 \times 16^{-4}$$
,

Hence, $\Delta n_R^{\dagger} = 1.7299 \times 10^{-3}$ and $\Delta n_Q^{\dagger} = 3.66523 \times 10^{-4}$. Thus, from Eq. (42) the radiance

$$N_{0,\Delta\lambda} = 1.8043 \times 10^{-8} \times 300^{4} \times 1.7299 \times 10^{-3} \sim 2.5 \times 10^{-1} \frac{300^{\circ} \text{K}}{\text{W m}^{-2}} \frac{1}{\text{sr}^{-1}}$$

and from Eq. (43) the quantum radiance

$$Q_{0,\Delta\lambda}$$
= 4.8371×10¹⁴×300³×3.6652 \sim 4.79×10¹⁸ $\frac{300^{\circ}\text{K}}{\text{Quanta s}^{-1}\text{ m}^{-2}} \text{ sr}^{-1}$.

A blackbody surface, for which the above data are valid, is brought into direct contact with a panel of specially doped semiconductors to form a thermal battery.

The conversion yield of the semiconductor, expressed in the manner introduced in this paper, is $N_D = {0.2 \atop 0.2} {0.2 \atop 0.2} {\rm electrons \atop 0.624 \times 10^{19}} {\rm electrons \atop 0.624 \times 10^{19}$

$$I_{\rm D} = \frac{\pi Q_{\rm 0, \Delta\lambda} \eta_{\rm D}}{0.624 \times 10^{19}} = \frac{\pi \times 4.8 \times 10^{18} \times 0.2}{0.624 \times 10^{19}} = 0.48 \text{ Amperes m}^{-2}.$$

IV. <u>Equations for the Difference in Radiance and Quantum Radiance Between</u> <u>Two Sources.</u>

For calculation of the threshold in detection of thermal sources, not only the radiance or quantum radiance of the target source is important, but often the difference $\Delta N_{O,\Delta\lambda}(T_{\mathbf{s}},T_{\mathbf{b}})$ between the radiance $N_{O,\Delta\lambda},_{\mathbf{s}}(T_{\mathbf{s}})$ of the target source and the radiance $N_{O,\Delta\lambda},_{\mathbf{b}}(T_{\mathbf{b}})$ of the background, or the difference $\Delta Q_{O,\Delta\lambda}(T_{\mathbf{s}},T_{\mathbf{b}})$ between quantum radiance $Q_{O,\Delta\lambda},_{\mathbf{b}}(T_{\mathbf{s}})$ of the target source and the quantum radiance $Q_{O,\Delta\lambda},_{\mathbf{b}}(T_{\mathbf{b}})$ of the background, is of more significance. Thus, for $\Delta N_{O,\Delta\lambda}(T_{\mathbf{s}},T_{\mathbf{b}})$ in W m⁻² sr⁻¹, by using Eq. (42), one finds

$$\Delta N_{0,\Delta\lambda}(T_s,T_b) = |N_{0,\Delta\lambda,s}(T_s) - N_{0,\Delta\lambda,b}(T_b)| = |1.8043 \times 10^{-8} [T_s^4 \Delta n_{Rs}(\lambda_{nmax,s},\lambda_{nmin,s}) - T_b^4 \Delta n_{Rb}(\lambda_{nmax,b},\lambda_{nmin,b})]|$$
(44)

and one finds for $\Delta Q_{0,\Delta\lambda}(T_s,T_b)$ in quanta s^{-1} m^{-2} sr^{-1} that

$$\Delta Q_{0,\Delta\lambda}(T_s,T_b) = |Q_{0,\Delta\lambda,s}(T_s) - Q_{0,\Delta\lambda,b}(T_b)| =$$

$$|4.8371 \times 10^{14} [T_s^3 \Delta n_{0s}^{\dagger}(\lambda_{max,s},\lambda_{min,s}) - T_b^3 \Delta n_{0b}^{\dagger}(\lambda_{max,b},\lambda_{min,b})]|, \qquad (45)$$

where the subscript s stands for the target source and b for the background.

Evidently, the target can have a higher or lower temperature than the background, and in most cases will shield the background. However, there are cases where the radiance of the target source and that of the background, respectively the quantum flux coming from the target and that coming from the background will add, which will be the case for translucent background sources, for example gases. Thus, the so called background in an image may really be foreground, caused by luminescent gases and/or light scattered between target and detector, and/or may be caused by darkcurrent in an insufficiently cooled detector, etc. However, the latter will not be considered in this paper. If one deals with translucent radiation sources between the target source and the

detector, obviously, one cannot add the temperatures of the different sources for the analysis, but must add the effective radiances or, respectively, the quantum radiances of the different sources in an appropriate manner. This is not an easy task, since the different spectral distributions of the different sources may have to be considered. Then, the difference between target source and the sources considered by definition as background is given by

$$\Delta Q_{0,\Delta\lambda}(T_{\mathbf{s}},T_{\mathbf{b}}) = \{n_{\mathsf{t}}Q_{0,\Delta\lambda,\mathbf{s}}(T_{\mathbf{s}}) + Q_{0,\Delta\lambda,\mathbf{b}}(T_{\mathbf{b}})\} - Q_{0,\Delta\lambda,\mathbf{b}}(T_{\mathbf{b}}) = n_{\mathsf{t}}Q_{0,\Delta\lambda,\mathbf{s}}(T_{\mathbf{s}}), \tag{46}$$

where η_{t} is the transmission factor of the luminescent medium in front of the target source. For such cases then, $\Delta N_{0,\Delta\lambda}(T_{s},T_{b})$ and $\Delta Q_{0,\Delta\lambda}(T_{s},T_{b})$ may be found using Eqs. (42) and (43), respectively, by multiplying these equations by η_{t} . However, one must consider the increased statistical fluctuation in the value of $\Delta Q_{0,\Delta\lambda}(T_{s},T_{b})$ when calculating the detection limit.

For the cases where the target is shielding the background, letting

$$T_{\mathbf{s}} = T_{\mathbf{b}} + \Delta T_{\mathbf{s}} \tag{47}$$

where ΔT is the temperature difference between target and background and can have a positive or negative value, Eqs. (44) and (45) may be rewritten as

$$\Delta N_{0,\Delta\lambda}(T_{s},T_{b}) = \left[1.8043\times10^{-8}\times\{(T_{b}+\Delta T)^{4}\eta_{Rs}^{\dagger}(\lambda_{nmax,s},\lambda_{nmin,s})-T_{b}^{4}\Delta\eta_{Rb}^{\dagger}(\lambda_{nmax,b},\lambda_{nmin,b})\}\right] = \left[1.8043\times10^{-8}\times\{(T_{b}+\Delta T)^{4}\eta_{Rs}^{\dagger}(\lambda_{nmax,s},\lambda_{nmin,s})-T_{b}^{4}\Delta\eta_{Rb}^{\dagger}(\lambda_{nmax,b},\lambda_{nmin,b})\}\right] = \left[1.8043\times10^{-8}\times\{(T_{b}+\Delta T)^{4}\eta_{Rs}^{\dagger}(\lambda_{nmax,s},\lambda_{nmin,s})-T_{b}^{4}\Delta\eta_{Rb}^{\dagger}(\lambda_{nmax,b},\lambda_{nmin,b})\}\right]$$

$$\left|1.8043\times10^{-8}\times T_{b}^{4}\left\{\left(1+\frac{\Delta T^{4}}{T_{b}^{4}}+4\frac{\Delta T^{3}}{T_{b}^{3}}+6\frac{\Delta T^{2}}{T_{b}^{2}}+4\frac{\Delta T}{T_{b}}\right)\eta_{Rs}^{\dagger}(\lambda_{nmax,s},\lambda_{nmin,s})-\Delta\eta_{Rb}^{\dagger}(\lambda_{nmax,b},\lambda_{nmin,b})\right\}\right|$$
(48)

$$\Delta Q_{0,\Delta\lambda}(T_s,T_b) = |4.8371\times10^{14}\times\{(T_b+\Delta T)^3\eta_{Qs}^{\dagger}(\lambda_{nmax,s},\lambda_{nmin,s})-T_b^3\Delta\eta_{Qb}^{\dagger}(\lambda_{nmax,b},\lambda_{nmin,b})\}| = |4.8371\times10^{14}\times\{(T_b+\Delta T)^3\eta_{Qs}^{\dagger}(\lambda_{nmax,s},\lambda_{nmin,s})-T_b^3\Delta\eta_{Qb}^{\dagger}(\lambda_{nmax,b},\lambda_{nmin,b})\}|$$

$$|4.8371\times10^{14}\times T_{b}^{3}\{(1+\frac{\Delta T^{3}}{T_{b}^{3}}+3\frac{\Delta T^{2}}{T_{b}^{2}}+3\frac{\Delta T}{T_{b}})\Delta\eta_{Qs}^{\dagger}(\lambda_{nmax,s},\lambda_{nmin,s})-\Delta\eta_{Qb}^{\dagger}(\lambda_{nmax,b},\lambda_{nmin,b})\}|_{\bullet}$$

(49)

Letting

$$\xi = \Delta T/T_b \quad (50)$$

Eqs. (48) and (49) may be written as

$$\Delta N_{0,\Delta\lambda}(T_{s},T_{b}) = \frac{1.8043\times10^{-8}T_{b}^{4}[(1+\xi)^{4}\Delta\eta_{Rs}(\lambda_{nmax,s},\lambda_{nmin,s}) - \Delta\eta_{Rb}(\lambda_{nmax,b},\lambda_{nmin,b})]}{(51)}$$

$$\Delta Q_{0,\Delta\lambda}(T_B,T_b) = \frac{14.8371\times10^{14}T_b^3[(1+\xi)^3\Delta\eta_{0B}^{\dagger}(\lambda_{nmax,B},\lambda_{nmin,B}) - \Delta\eta_{0b}^{\dagger}(\lambda_{nmax,b},\lambda_{nmin,b})]|.$$
(52)
Example IV.

The blackbody source of Example III has to be detected against a background of 295°K. The numerical value of the difference in radiance and the difference in quantum radiance for the 3.4 μm to 4 μm window in the atmosphere is needed. From Eq. (7) for the background temperature

$$\lambda_{\text{opt}} = \frac{2.8978 \times 10^{-3}}{295} = 9.823 \times 10^{-6} \text{ m}$$

from Eq. (13) for the background

$$\lambda_{\text{nmax}} = 3.45089 \times 10^2 \times 4 \times 10^{-6} \times 295 = 0.407205$$

$$\lambda_{\text{nmin}} = 3.45089 \times 10^2 \times 3.4 \times 10^{-6} \times 295 = 0.346123$$

and from Eq. (50)

$$\xi = \frac{\Delta T}{T_b} = \frac{5}{295} = 1.694915 \times 10^{-2}$$
.

Then, by using Table 3 in connection with appropriate interpolation one finds for the background for λ_{nmax} that

$$\eta_{Rmax,b} = 1.823600 \times 10^{-3}$$

$$\eta_{\text{Qmax,b}}^{+} = 3.688356 \times 10^{-4}$$

and for λ_{nmin} that

$$\eta_{\text{Rmin.b}}^{\dagger} = 3.320624 \times 10^{-4}$$

$$\eta_{\text{Qmin,b}}^{\dagger} = 5.793181 \times 10^{-5}$$
.

Hence

$$\Delta \eta_{Rb}^{\dagger} = 1.491538 \times 10^{-3}$$
 and $\Delta \eta_{Qb}^{\dagger} = 3.109038 \times 10^{-4}$.

By using the values for the n's found in Example III for 300° K and by using the above values, Eq. (51) may be used to find the difference in the radiance

and Eq. (52) may be used to find the difference in the quantum radiance

$$\Delta Q_{0,\Delta\lambda} = |4.8371 \times 10^{14} \times 295^{3} \times \{(1+0.016949)^{3} \times 3.6652 \times 10^{-4} - 3.1090 \times 10^{-4}\}|$$

$$\sim 9.3 \times 10^{17} \text{ Quanta s}^{-1} \text{ m}^{-2} \text{ sr}^{-1}.$$
3.4 \text{um to 4.0 \text{um}}

Since, in Example III, $Q_{0,\Delta\lambda}\sim 4.8\times 10^{18}$ Quanta s $^{-1}$ m $^{-2}$ sr $^{-1}$ the value of $Q_{0,\Delta\lambda}$ for 295°K is

$$Q_{0,\Delta\lambda} = 4.8 \times 10^{18} - 0.93 \times 10^{17} \sim 3.9 \times 10^{18} \frac{295 \text{ °K}}{\text{Quanta s}^{-1} \text{ m}^{-2} \text{ sr}^{-1}}$$

Eqs. (51) and (52) may be solved for ξ . Thus,

$$\xi = \left\{ \frac{\frac{\Delta N_{0,\Delta\lambda}(T_s,T_b)}{1.8043\times10^{-8}T_b^4} + \Delta \eta_{Rb}^{\dagger}(\lambda_{nmax,b},\lambda_{nmin,b})}{\Delta \eta_{Rs}(\lambda_{nmax,s},\lambda_{nmin,s})} \right\}^{\frac{1}{4}} - 1$$

$$= \left\{ \frac{\frac{\Delta Q_{0,\Delta\lambda}(T_s,T_b)}{4.8371\times10^{14}\times T_b^3} + \Delta \eta_{Qb}^{\dagger}(\lambda_{nmax,b},\lambda_{nmin,b})}{\Delta \eta_{Qs}^{\dagger}(\lambda_{nmax,s},\lambda_{nmin,s})} \right\}^{1/3} -1.$$

(53)

If $\Delta N_{\mathrm{Omin},\Delta\lambda}(T_{\mathbf{s}},T_{\mathbf{b}})$ and $\Delta Q_{\mathrm{Omin},\Delta\lambda}(T_{\mathbf{s}},T_{\mathbf{b}})$ are respectively the minimum difference in the radiance and the minimum difference in the quantum radiance a blackbody target source can have against a given blackbody background under certain geometrical and optical conditions and be detectable with a certain signal to noise ratio, then the smallest temperature difference ΔT_{\min} in °K corresponding to these conditions, is given by rewriting Eq. (53) by

$$\Delta T_{\min} = \left\{ \left(\frac{\Delta N_{\text{Omin},\Delta\lambda}(T_{\text{g}},T_{\text{b}})}{1.8043\times10^{-8}T_{\text{b}}^{4}\Delta\eta_{\text{Rb}}(\lambda_{\text{nmax},\text{b}},\lambda_{\text{nmin},\text{b}})} + 1 \right)^{\frac{1}{4}} K_{\text{R}}^{\frac{1}{4}}(\lambda_{\text{nmax}},\lambda_{\text{nmin}}) - 1 \right\} T_{\text{b}}$$

$$= \left\{ \left(\frac{\Delta Q_{\text{Omin},\Delta\lambda}(T_{\text{g}},T_{\text{b}})}{4.8371\times10^{14}\times T_{\text{b}}^{3}\Delta\eta_{\text{Qb}}(\lambda_{\text{nmax},\text{b}},\lambda_{\text{nmin},\text{b}})} + 1 \right)^{\frac{1}{4}} K_{\text{Q}}^{\frac{1}{4}}(\lambda_{\text{nmax}},\lambda_{\text{nmin}}) - 1 \right\} T_{\text{b}}$$

$$= \left\{ \left(\frac{\Delta Q_{\text{Omin},\Delta\lambda}(T_{\text{g}},T_{\text{b}})}{4.8371\times10^{14}\times T_{\text{b}}^{3}\Delta\eta_{\text{Qb}}(\lambda_{\text{nmax},\text{b}},\lambda_{\text{nmin},\text{b}})} + 1 \right)^{\frac{1}{4}} K_{\text{Q}}^{\frac{1}{4}}(\lambda_{\text{nmax}},\lambda_{\text{nmin}}) - 1 \right\} T_{\text{b}}$$

where

$$K_{R}(\lambda_{nmax}, \lambda_{nmin}) = \frac{\Delta \eta_{Rb}(\lambda_{nmax}, b, \lambda_{nmin}, b)}{\Delta \eta_{Rs}(\lambda_{nmax}, s, \lambda_{nmin}, s)}$$
(55)

and

$$K_{Q}(\lambda_{nmax}, \lambda_{nmin}) = \frac{\Delta \eta_{Qb}(\lambda_{nmax}, b, \lambda_{nmin}, b)}{\Delta \eta_{Qs}(\lambda_{nmax}, s, \lambda_{nmin}, s)}.$$
 (56)

Evidently, $K_R(\lambda_{nmax}, \lambda_{nmin})$ and $K_Q(\lambda_{nmax}, \lambda_{nmin})$ can be $\stackrel{>}{>}$ 1, depending on whether the interval $\Delta\lambda$ is below or above λ_{peak} and/or if ΔT is a positive or negative value, i.e. if T_s is larger or smaller than T_b .

However, for using Eq. (54) in order to solve for ΔT_{min} for given T_b and $\Delta N_{Omin,\Delta\lambda}$ or $\Delta Q_{Omin,\Delta\lambda}$, $\Delta n_{Rs}^{\dagger}(\lambda_{nmax,s},\lambda_{nmin,s})$ or $\Delta n_{Os}^{\dagger}(\lambda_{nmax,s},\lambda_{nmin,s})$ is required. In order to obtain these values from Table 3 in connection with Eq. (13), one must know ΔT_{min} . Hence, if the value of $\Delta N_{Omin,\Delta\lambda}$ or $\Delta Q_{Omin,\Delta\lambda}$ is given, ΔT_{min} can only be found b, successive approximation by using Eqs. (51) or (52), as is shown in the next example.

Example V

Given

$$\Delta Q_{Omin,\Delta\lambda} = 5 \times 10^{17} \frac{\Delta (300^{\circ} - T_b)}{Quanta s^{-1} m^{-2} sr^{-1}}$$
 and $1.5 \times 10^{16} \frac{\Delta (300^{\circ} - T_b)}{Quanta s^{-1} m^{-2} sr^{-1}}$.

For the above values ΔT_{min} is needed; also the numerical values of the corresponding $N_{Omin,\Delta\lambda}$ are wanted.

The results can be found by successive approximation using Eq. (52). Since, from the Example IV it is evident that, for the given values, the value of T_b = T_s - ΔT_{min} is between 295°K and 300°K, it is necessary to plot the values of $\Delta Q_{Omin,\Delta\lambda}$ for T_b = 295°K, 296°K, 297°K, 298°K, 299°K, 299.5°K, 299.7°K, 299.9°K, 299.95°K and 299.99°K, for this operation, as shown in Fig 5. Evidently, after ΔT_{min} for the two values of $\Delta Q_{Omin,\Delta\lambda}$ has been found from Fig. 5, calculation of $\Delta N_{Omin,\Delta\lambda}$ by using Eq. (51) is possible. However, in order to permit correllation between radiance and quantum radiance for any temperature in the range of 295°K to 300°K, the values of $\Delta N_{O,\Delta\lambda}(T_b)$ are plotted also in Fig. 5 for all of the above values of T_b .

From Fig. 5 then the results are, for the above given values:

$$\Delta T_{min} = 2.6$$
°K and 0.07°K

and

$$\Delta (300^{\circ}K-297.4^{\circ}K)$$
 $\Delta (300^{\circ}K-299.93^{\circ}K)$
 $\Delta N_{Omin,\Delta\lambda} = 2.7 \times 10^{-2}$ W m⁻² sr⁻¹ and 7.5×10^{-3} W m⁻² sr⁻¹ 3.4 um to 4.0 um

respectively.

If one assumes in Eq. (51) that

$$\Delta n_{\rm Re}^{\dagger} \sim \Delta n_{\rm Rb}^{\dagger} \sim 1 , \qquad (57)$$

i.e., assumes that the wavelength interval considered for the target source and the background is effective from $\lambda_n=0$ to $\lambda_n=\infty$, one obtains the "maximum in the difference in the radiance" $\Delta N_{O,\Delta\lambda max}(T_D,\Delta T)$ in W m⁻² sr⁻¹. Thus

$$\Delta N_{0,\Delta\lambda_{max}}(T_{b},\Delta T) = [1.8043 \times 10^{-8} T_{b}^{4} [(1+T_{b}^{-1}\Delta T)^{4} - 1]]. \tag{58}$$

Since $\frac{\Delta T}{T_b}$ = ξ <1, one may rewrite Eq. (58) by modifying the term in large parentheses by replacing the fourth power term with the first three terms of the binomial expansion. Thus

$$\Delta N_{0,\Delta\lambda max}(T_b,\Delta T) \sim |1.8043 \times 10^{-8} T_b^4 (4\xi + 6\xi^2)|$$
 (59)

Furthermore, for $\xi <<1$, which is usually the case for threshold

temperature differences, the second term in the parentheses of Eq. (59) may be neglected; then Eq. (50) may be used for substitution of ξ . Hence for threshold temperature differences

$$\Delta N_{0,\Delta \lambda \max, \text{thr}}(T_{b},\Delta T) \sim |7.2 \times 10^{-8} T_{b}^{4} \xi| \sim |7.2 \times 10^{-8} T_{b}^{3} \Delta T|_{\bullet}$$
 (60)

In the same manner and for the same assumptions, by using Eq. (52) one finds for the maximum difference in the quantum radiance $\Delta Q_{0,\Delta\lambda max}(T_b,\Delta T)$ in Quanta s⁻¹ m⁻² sr⁻¹ the expression

$$\Delta Q_{0,\Delta \lambda max}(T_{b},\Delta T) = |4.837 \times 10^{14} T_{b}^{3} \{ (1+\Delta T/T_{b})^{3} - 1 \} |.$$
 (61)

Hence

$$\Delta Q_{0,\Delta \lambda \max} (T_b, \Delta T) = |4.837 \times 10^{14} T_b^3 (3\xi + 3\xi^2)| \sim |1.5 \times 10^{15} T_b^3 \xi (1+\xi)|$$
(62)

and for threshold temperature differences where $\xi <<1$

$$\Delta Q_{0,\Delta\lambda \max, thr}(T_{b},\Delta T) \sim |1.5 \times 10^{15} T_{b}^{3} \xi| \sim |1.5 \times 10^{15} T_{b}^{2} \Delta T|,$$
 (63)

The ratios $\Delta N_{0,\Delta\lambda}(T_{\mathbf{s}},T_{\mathbf{b}})|\Delta N_{0,\Delta\lambda\max}(T_{\mathbf{b}},\Delta T)$ and $\Delta Q_{0,\Delta\lambda}(T_{\mathbf{s}},T_{\mathbf{b}})|\Delta Q_{0,\Delta\lambda\max}(T_{\mathbf{b}},\Delta T)$ will be called the utilization factors $n_{\mathbf{U}\beta}$. Thus, by using Eqs. (51) and (59)

$$\eta_{\rm UR}(T_{\rm b}, \Delta T, \lambda_{\rm nmax}, \lambda_{\rm nmin}) = \frac{(1+\xi)^4 \Delta \eta_{\rm Rs}^{\dagger}(\lambda_{\rm nmax}, s, \lambda_{\rm nmin}, s) - \Delta \eta_{\rm Rb}^{\dagger}(\lambda_{\rm nmax}, b, \lambda_{\rm nmin}, b)}{4\xi+6\xi^2}$$
(64)

and by using Eqs. (52) and (62)

$$\eta_{UQ}(T_b, \Delta T, \lambda_{nmax}, \lambda_{nmin}) = \frac{(1+\xi)^3 \Delta \eta_{Qe}^{\dagger}(\lambda_{nmax,e}, \lambda_{nmin,e}) - \Delta \eta_{Qb}^{\dagger}(\lambda_{nmax,b}, \lambda_{nmin,b})}{3\xi+3\xi^2}$$
(65)

where for ξ <<1, the second term in the denominator of Eqs. (64) and (65)

may be neglected.

Example VI

The values of r_{IUR} and r_{IUQ} for the data of Example IV are needed for determining the maximum theoretical gain possible by extending the wavelength interval under consideration. Thus, using Eq. (64),

$$\eta_{UR} = \frac{(1+0.01695)^4 \times 1.7299 \times 10^{-3} - 1.4915 \times 10^{-3}}{4 \times 0.01695 + 6 \times 0.01695^2} \sim 5.2 \times 10^{-3}$$

and using Eq. (65),

$$\eta_{UQ} = \frac{(1+0.01695)^3 \times 3.6652 \times 10^{-4} - 3.1090 \times 10^{-4}}{3 \times 0.01695(1+0.01695)} \sim 1.5 \times 10^{-3}$$

Hence, when in Example IV the selected bandwidth of $\pm 0.3~\mu m$ at 3.7 μm is broadened to cover the entire spectrum, the gain in quantum radiance is

$$\frac{1}{n_{UO}} = \frac{1}{1.5 \times 10^{-3}} \sim 670$$

V. The Inflection Points of the Normalized Blackbody Functions

The values of λ_n for the inflection points of the functions $\eta_R(\lambda_n)$ and $\eta_Q(\lambda_n)$ may be of interest and can be found by equating to zero the second derivatives of the functions $\eta_R(\lambda_n)$ and $\eta_Q(\lambda_n)$. Hence, letting the numerator of Eq. (12) be K_1 and the exponent 4.96511 of e be K_2 , Eq. (12) may be written as

$$\eta_R(\lambda_n) = K_1 \lambda_n^{-5} (e^{K_2 \lambda_n^{-1}} - 1)^{-1}$$
 (66)

and one finds for the first derivative

$$\eta_{R}(\lambda_{n}) = -K_{1}\lambda_{n}^{-6}(e^{K_{2}\lambda_{n}^{-1}}-1)^{-1}[5+K_{2}\lambda_{n}^{-1}(e^{K_{2}\lambda_{n}^{-1}}-1)^{-1}e^{K_{2}\lambda_{n}^{-1}}].$$
 (67)

Then, the second derivative $\eta_R(\lambda_n)$ is given by

$$\eta_{R}^{"}(\lambda_{n}) = 30 - K_{2}\lambda_{n}^{-1}(e^{K_{2}\lambda_{n}^{-1}}-1)^{-1}e^{K_{2}\lambda_{n}^{-1}}\{12-K\lambda_{n}^{-1}[2(e^{K_{2}\lambda_{n}^{-1}}-1)^{-1}e^{K_{2}\lambda_{n}^{-1}}-1]\}, \quad (68)$$

Letting

$$\mathsf{K}_2\lambda_{\mathsf{n}}^{-1} = \mathsf{Z}_{\mathsf{p}} \tag{69}$$

Eq. (68) may be rewritten as

$$\eta_{R}^{"}(\lambda_{n}) = 30-Z(e^{Z}-1)^{-1}e^{Z}\{12-Z[2(e^{Z}-1)^{-1}e^{Z}-1]\}.$$
 (70)

Equating $n_R''(\lambda_R)$ to zero, yields

$$Z^{2} = \frac{\frac{30}{e^{z}} (e^{z}-1)^{2}-12Z(e^{z}-1)}{(e^{z}-1)-2e^{z}}.$$
 (71)

This equation may be solved for the numerical values of \boldsymbol{Z} by successive approximation, which yields

$$Z_1 = 8.445$$
 and $Z_2 = 3.524$. (72)

Using these values in Eq. (69) and solving λ_n , one obtains the numerical values of λ_n for the inflection points of $\eta_Q(\lambda_n)$ which are

$$\lambda_{nR1} = 0.58793$$
 and $\lambda_{nR2} = 1.4089$. (73)

Commencing with Eq. (24) and by performing operations similar to those above, the inflection points of $n_Q(\lambda_n)$ may be found. Thus, one finds for $n_Q''(\lambda_n) = 0$ that

$$Z^{2} = \frac{\frac{20}{e^{z}} (e^{z}-1)-10Z(e^{z}-1)}{(e^{z}-1)-2e^{z}},$$
 (74)

which yields for

$$Z_1 = 7.222$$
 and for $Z_2 = 2.699$. (75)

Thus, using Eq. (69) the inflection points of $\eta_Q(\lambda_n)$ are at

$$\lambda_{nQ1} = 0.6875$$
 and $\lambda_{nQ2} = 1.8396$. (76)

Example VII.

The wavelength of the inflection points for $\eta_R(\lambda_n)$ and $\eta_Q(\lambda_n)$ for 300°K might be of interest.

From Eq. (13) the wavelength λ_β of the inflection points are given by

$$\lambda_{\beta} = \frac{\lambda_{n\beta}}{3.45089 \times 10^2 T}.$$

Thus,

$$\lambda_{R1} = \frac{0.58793}{3.45089 \times 10^2 \times 300} = 5.679 \times 10^{-6} \text{ m}$$

$$\lambda_{R2} = \frac{1.4089}{3.45089 \times 10^2 \times 300} = 13.609 \times 10^{-6} \text{ m}$$

$$\lambda_{Q1} = \frac{0.6875}{3.45089 \times 10^2 \times 300} = 6.641 \times 10^{-6} \text{ m}$$

$$\lambda_{Q2} = \frac{1.8396}{3.45089 \times 10^2 \times 300} = 17.769 \times 10^{-6} \text{ m}.$$

The transmission factor η_{Mn} plotted in Fig 7 6 is valid for the normalized air mass, i.e. the so-called air mass 1 which is a vertical air column at standard pressure of 760 mm Hg and temperature 0° C. This column, when over an area of 1 cm², contains 2.157×10^{25} gas molecules and yields a homogeneous atmosphere of a height of 7.991 km. One can calculate the transmission-factor η_{M} through the earth's atmosphere for the angle φ in reference to the normal of the earth by raising η_{Mn} to the exponential power of the ratio ε of the traversed airmass to the vertical airmass, i.e.

$$\eta_{M} = \eta_{Mn}^{\varepsilon} \tag{77}$$

$$\varepsilon = \frac{\Delta r}{r^{+}}, \tag{78}$$

where Δr is the vertical height of the atmosphere and r^1 is the path length through the atmosphere at angle ρ to the normal of the earth. Any changes in the path as affected by diffraction has been neglected in the above, since it will have very little influence on the following approximation.

Since beyond 31 Km altitude less than 1% of the air remains one can, by using the cosine law, derive an expression for ε which by using the 31 Km (permitting a 1% error) or any other reasonable value, will give a useful approximation for ε . Thus,

$$\varepsilon = \frac{r^{\dagger}}{\Delta r} = \left(\frac{r^2}{\Delta r^2} \cos^2 \phi + 1 + \frac{2r}{\Delta r}\right)^{\frac{1}{2}} - \frac{r}{\Delta r} \cos \phi, \qquad (79)$$

where r is the earth's radius.

Using in Eq. (65) the values r = 6371 Km and $\Delta r_{\sim}31.885$ Km one obtains the approximations

$$\varepsilon \sim 20[(1+10^2\cos^2\phi)^{\frac{1}{2}}-10\cos\phi]$$
 , $\varepsilon > 1.4$; (80)

$$\varepsilon \sim \frac{1}{\cos \phi}$$
, $\varepsilon < 1.4$; (81)

and

$$\cos\phi \sim \frac{1}{\varepsilon} - \frac{\varepsilon}{400}$$
, $\phi > 45^{\circ}$, $\varepsilon > 1.4$; (82)

$$\cos\phi \sim \frac{1}{\varepsilon}$$
, $\varphi < 45^{\circ}$, $\varepsilon < 1.4$. (83)

Example VIII

In the graph of Fig. 7 one finds for the spectral interval 8.5 μm to 11 μm an average value for n_{Mn} = 0.88. The value of φ is of interest. From Eq. (77)

$$\log_e \eta_M = \epsilon \log_e \eta_{Mn}$$
.

Thus,

$$\varepsilon = \frac{\log_e 0.4}{\log_e 0.88} = \frac{-0.91629}{-0.12783} = 7.17.$$

Then, by using Eq. (82)

$$\cos\phi \sim \frac{1}{\varepsilon} - \frac{\varepsilon}{400} = 0.1215$$

$$\phi = 83^{\circ} 1'_{\bullet}$$

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R.K.H.Gebel, Cumulative Blackbody Functions.

Table 1a. Normalized blackbody functions for spectral radiance, $\eta_{\rm R}(\lambda_{\rm h})$. and spectral quantum flux, $\eta_{\mathbf{Q}}(\lambda_{\mathbf{h}})$.

R.K.H.Gebel, Cumulative Blackbody Functions.

Table 1b. Normalized blackbody functions for spectral radiance, $\eta_{R}(\lambda_{\mathbf{n}})$, and spectral quantum flux, $\eta_{Q}(\lambda_{n})$.

	-		_		-	_	_	_		_	_	_	_	-	_	_	_	_	_	_		_		_					_	-		
η _Q (λ _n)	.86725	.84370	.81978	.79572	0.171690	.74783	.72427	.67839	.63458	.59312	.55417	.51175	.48381	•45228	•42302	.39593	.37083	.27058	. 20189	.15393	11971	•09475	•07619	•06212	•05128	.04280	-03609	.03069	.02632	.02273	.01977	.0028
η _R (λ _n)	-57105	.53967	. 50980	.48146	454	•42624	.40537	.36161	99776	99997	.25847	• 2318 2	-23829	.18750	116911	.15281	.13835	.08653	.05649	.03829	.02680	.01928	·C1451	• 01069	.00823	.00638	.00505	+0400	.00327	.00267	.032	1000
$\lambda_n = \frac{\lambda}{\lambda_{opt}}$		-	8	8	1.90	•	Ç (֡֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֡֓֓֓֓֓֡֓֓֡֓֡֓֡֓֓֓֡֡֓֡֓	•	•	3	·	9	•	8	6	0	.5	C	.5	0	5	0	Š	င့	.5	0	5	0	.5	0.0	0
η _Q (λ _n)	•66131	•67781	•66363	• 10964	0.724957	• 73984	•75431	. 76834	20500	000610	87708	*0078*	.83185	12649.	.85412	.86459	.87461	.88420	.89335	.93274	11296	98786	99456	80666	. 99815	• 49268	.98234	.96849	.95179	.93285	.91	.89018
η _R (λ _n)	90276	91413	.92473	•93455	943	74164.	00666	07262	07970	77076	C	00000	44054	CCC 44.	24444	\$1155°	10666	91666	00000	18466	00717	77066	61176	77669	84469	82310	78544	.74766	,71028	61369	0.638168	60391
$\lambda_n = \frac{\lambda}{\lambda \text{ opt}}$	0.82	00	B	00 (•	D 0	• 0		. 0	ָרָ ס פ		. C	•	. (•	2 (. (9	? •	- •	٠, د	7 (7	9 (4	4	S	Š	1.60	9

R.K.H.Gebel, Cumulative Blackbody Functions.

Table 2a. Cumulative blackbody functions for radiant power, η (λη), and quantum flux, $\eta_{Q}^{\pm}(\lambda_{\Pi})$.

η# (λ _n)		η\$ (λ _n)	λη =χορτ	η# (λ _n)	η# (λ _n)
• 00000		00000	.5	.02016	.00831
• 0000		90	.5	.02295	00962
• 000000	_	00000		.02598	.0110
• 000001		00000	S	.02925	01266
-000002		00000	.5	.03277	.01441
• 000000	_	00000	S	.03654	01631
.000010	<u> </u>	00000	.5	.04057	01838
.000018	_	00000	S	.04485	.02062
.000031	0	00000	•	.04939	.02303
•000052	<u> </u>	.00001	•	.05418	.02562
.000083	0	.0000	9.	.05922	£2839
•000129	0	.0000	9.	•06452	.03135
.000195	<u> </u>	.0000	9.	.07006	03446
• 000286	<u> </u>	.0000	9.	.07585	.03783
•000410	0	00011	•	.08188	.04136
-000574	- -	91000	•	+1990 •	80420
0 000787	0	00023	•	+0+x0.	7. P. P. P. O.
0.001401	-	000437	0, 00	0.10133	0.057414
.001823	_	00058	-	11543	06191
.002338		.00076		.12278	.06661
.002958		8600ū•	-	.13033	.07149
• 003695		.00126		.13807	.07657
.004561	_	.00159	-	•14599	.08184
.005571		•00198	-	.15408	.08730
.006735	_	.00244	. 1	.16234	•09295
•008056		.0029	~	.17075	.09877
• 009576	_	.00361	.7	.17932	.10478
.011275		.00433	8	.18303	11091
.013175		.00515	8	.19687	.11732
.015284		*0000	8	.20584	.12385
.017612		.00714	. 8	.21492	.13055

R.K.H.Gebel, Cumulative Blackbody Functions.

Cumulative blackbody functions for radiant power, $\eta_R^{\sharp}(\lambda_n)$, and quantum flux, $\eta_{Q}^{*}(\lambda_{n})$. Table 2b.

λη = χλορτ	η# (λ _n)	η ξ (λη)	λη = χ	η#(λ _n)	η\$(λ _n)
•	.22412	.13741	•	.00343	.01960
8	.23342	.14443	•	.02820	.05999
8	.24281	.15160	•	.05160	.09917
8	.25229	.15893	•	•07369	.13716
0.88	0.261848	16	2.00	960	17
8	.27147	17401	•	.13286	.24408
6	.28117	.18176	•	.16704	.30971
5	.29092	.18965	•	•19759	.37107
6.	.30073	•19766	•	.22491	.42842
6	.31058	.20580	•	.24940	.48199
5	.32047	.21406		.27138	.53205
6.	•33039	.22244	•	.29115	.57884
6	.34033	.23092	•	.30896	.62258
6	.35030	.23952	•	.32504	.66351
6.	.36029	.24821		.33959	.70183
6	.37028	.25701	•	.39459	.86058
0	.38028	.26590		.42970	.97764
0	.43019	.31159	•	• 45304	.06590
7	•41956	• 35900	•	.46910	.13385
7	.52797	• 40765	•	8050	.18715
2.	.57509	.45711	•	.48879	.22957
7	.62067	• 50699	•	.49497	.26409
.	• 66456	.55698	•	9966	.29233
.	. 70665	.60678		.50328	.31576
4.	.74686	.65617		.50613	.33543
*	. 78519	.70496		0839	.35208
1.50	.82163	.75297		1021	.36629
	.85623	.80010		51169	37853
•	.88902	.84623	ö	51291	38914
9.	.92007	.89129	20.	51972	.46785
1.70	*9656	.93523		2079	+0964
1.75	.97720	.97801	40.	2080	.49665

R.K.H.Gebel, Cumulative Blackbody Functions.

70 (V u) 0.022990 0.013814 0.019620 0.024793 0.028630 0.030665 0.032775 0.004434 0.005072 0.006533 0.009223 0.010260 0.011370 0.012554 0.015149 0.018052 0.021266 0.026673 0.037221 0.041960 0.049597 0.052278 0.003854 0.007362 0.008258 0.016562 0.034961 0.039554 0.044436 0.046983 0.003331 0.005771 Normalized cumulative blackbody functions for radiant 0.075906 0.080740 0.085702 TH(An) 0.019236 0.026679 0.038944 0.017084 0.057960 0.062230 0.090790 0.095997 0.101318 0.106748 0.112282 0.117915 0.129455 0.015094 0.046072 0.049878 0.053842 0.066647 0.071207 0.123641 0.141325 0.024031 0.032477 0.035627 0.135351 power, $\eta_{R}^{\dagger}(\lambda_{\Pi})$, and quantum flux, $\eta_{Q}^{\dagger}(\lambda_{\Pi})$. λη χορί 0.68 0.55 0.57 0.58 0.59 0.00 0.62 9.0 0.65 19.0 0. 70 0.71 0.72 0.73 0.74 0.75 0.76 0.80 0.61 000000000 0.000002 0.00000 0.00000 0.00000 0.000013 0.000046 0.000067 0.000094 0.000129 0.000175 0.000233 0.000306 0.000396 0.000575 0.000.37 0.000794 0.000979 0.001196 0.001447 0.001736 0.002066 0.002439 0.002860 7,€(ハハ) 00000000 00000000 00000000 0.000031 00000000 0.00000 0.000021 0.000055 0.000270 0.00000 0.00000 0.000020 0.000128 0.000188 0.001199 0.002429 0.002999 0.004428 0.000000 000000-0 0.00000 0.000002 0.000012 0.000034 0.000518 0.000697 0.001537 0.001945 0.003663 0.005304 C.006296 0.007414 0.008663 0.010050 7 (\(\(\)) 0.000921 30. An = Appt 0.39 0.40 0.49 0.25 0.27 0.28 0.29 0.30 0.32 0.34 0.35 0.36 0.37 0.38 0.45 0.43 9.44 0.45 9.40 0.47 0.48 0.22 0.23 0.41 Table

R.K.H.Gebel, Cumulative Blackbody Functions.

Table 3b. Normalized cumulative blackbody functions for radiant power, $\eta_R^{\dagger}(\lambda_n)$, and quantum flux, $\eta_Q^{\dagger}(\lambda_n)$.

70(1)	-40828	.42445	.44014	.45535	.47009	.49817	.52445	.54902	57198	9343	1348	221	973	12	1,	93	91	25	9	8	83	19	923	8	18	84	3	1	68	21	64	9741
					_			_		•		9.	9.	•66	•68	*1.	. 79	.82	.85	.87	8	90	16	•92	.93	.94	.94	.95	• 95	.98	66.	66.
η‡ (λη	.6598	•67609	14169.	. 70600	.71972	.74491	.76738	. 78747	.80543	.82154	.83599	.84893	.86070	.87127	.88084	.91701	• 94009	.95544	.96600	.97349	.97895	.98301	-986	.98848	.99035	.99183	.99303	.99400	66.	.99928	66666	6666.
λη = χ <u>φτ</u>	8	8	6.	6.	0	7	• 2	6	*	.5	9	-	. 8	•	0	Š	0	S	0	5	0	.5	0	S	0	5	9	9.5	0.0	20.0	000	40.0
70 (V)	.05502	.05783	.06070	.06364	•06663	.06968	.07278	.07594	.07915	.08241	.08571	.08907	.09247	16560	•09939	10291	.10647	.12477	.14375	.16323	.18304	.20301	• 22303	162420	• 26275	•28228	. 30151	.32038	.33886	.35690	.37450	.39162
ηt(λn)	14737	15348	15966	16589	17217	17850	18488	19129	19774	20422	21012	.21724	.22378	23034	.23690	24348	. 25005	28287	51255	24/10	+1916.	21804.	43078	CO+0+.	A0144	05016.	204060	10606.	10400	66400	.62430	•64255
λη=χ ρι	æ (w		B)	æ (5 (5 (5 (5 (5	5	5	<u>ئ</u> ر	r (3 (<u>,</u>	∹ -	۲, د	ň.	i	•	•	•	* 4	•		•	•	•	
) $\eta_{\mathbf{Q}}^{\dagger}(\lambda_{n})$ $\lambda_{n} = \frac{\lambda}{\lambda_{opt}}$ $\eta_{\mathbf{R}}^{\dagger}$	$\frac{\Delta}{1000t}$ $\eta_{R}^{\dagger}(\lambda_{\Pi})$ $\eta_{Q}^{\dagger}(\lambda_{\Pi})$ $\lambda_{\Pi} = \frac{\Delta}{\lambda_{OD}t}$ η_{R}^{\dagger}	$\frac{\lambda}{\text{copt}}$ $\eta_{\text{R}}^{\text{L}}(\lambda_{\text{In}})$ $\eta_{\text{O}}^{\text{L}}(\lambda_{\text{In}})$ $\lambda_{\text{In}} = \frac{\lambda}{\lambda_{\text{Opt}}}$ $\eta_{\text{R}}^{\text{L}}$.84 0.147371 0.055025 1.80 0.055025 1.85 0.055025	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	An = Λορτ ηξ(λη) ηξ(λη) ης (λη) <	An = Λορτ ηξ(λη) ηξ(λη) ης (λη) <	An = Λορτ ηξ(λη) ητ (λη) ητ (λη)	An = Λορτ η (λn) η (λn) η π (λn) η μ (λn) <	An = Λορτ η (λη) η (An = Λορτ η (λη) η (An = Λορτ η (λn) η (λn) η π = Λορτ η μ (λn) η μ = Λορτ η μ = Λορτ	An ηξ(λη) ηξ(λη) ης (λη) ης (April (λn) η(λn) λορτ η η η η η η η η η η η η η η η η η η η	April (λη) η (λη) λορί η γρ((λη) η γρ	Apt (λη) η (λη) λη = λορτ η β 84 0.147371 0.055025 1.80 0.055025 85 0.153484 0.057835 1.85 0.055825 86 0.153484 0.057835 1.85 0.056832 87 0.155892 0.066632 2.00 0.00 89 0.172177 0.066632 2.00 0.00 90 0.178484 0.072785 2.20 0.00 91 0.191297 0.075943 2.40 0.00 92 0.204221 0.082411 2.50 0.00 94 0.217247 0.085719 2.50 0.00 95 0.223788 0.095713 2.70 0.00 97 0.230343 0.095913 2.90 0.0 98 0.095913 2.90 0.0	Apt Λη = Δ Λροτ Λη = Δ Λροτ Λροτ	Apt (λn) η (λn) η (λn) η π πλορτ η η μ (λn) η μ μ μ μ μ μ μ μ μ μ μ μ μ μ μ μ μ μ μ	Apt (λn) η (λn) λn = λopt η γ (λn) 84 0.147371 0.055025 1.80 0.055025 85 0.153484 0.063641 1.95 0.055825 86 0.153484 0.065832 1.95 0.055825 87 0.152177 0.066632 2.00 0.00 88 0.172177 0.066632 2.00 0.00 89 0.172177 0.066632 2.00 0.00 90 0.197884 0.065681 2.20 0.00 91 0.197744 0.075943 2.40 0.00 92 0.204221 0.085719 2.50 0.00 94 0.217247 0.085719 2.50 0.00 95 0.223788 0.095913 2.90 0.00 97 0.236908 0.095913 3.50 0.00 99 0.223480 0.102916 4.50 0.00 99 0.223480 0.102916 4.50 0.00	April λη η(λη) η(λη) η(λη) η π κορί η μ	A	A	λορτ ηξ(λη) ηη(λη) λη πλορτ ηβ -84 0.147371 0.055025 1.85 0.057835 1.85 0.057835 1.85 0.159660 0.0657835 1.85 0.159660 0.0657835 1.95 0.0657835 1.95 0.0657832 0.0657832 0.0657832 0.0657832 0.0657832 0.0657832 0.0657832 0.0657832 0.0657832 0.0657832 0.0657832 0.0657832 0.0657832 0.0657832 0.0657832 0.065783 0.065783 0.065783 0.065783 0.065783 0.065783 0.065783 0.06578 0.	αρτ η (λη) η (λη) η (λη) η π πλορτ η π μος -85 0.147371 0.055025 1.80 0.055025 -85 0.153484 0.055025 1.85 0.055025 -86 0.153484 0.055025 1.85 0.055025 -87 0.155892 0.066632 2.00 0.055025 -88 0.172177 0.066632 2.00 0.055025 -89 0.172177 0.066632 2.00 0.055025 -89 0.197247 0.069681 2.00 0.05719 -90 0.197744 0.077152 2.00 0.05719 -91 0.197744 0.085719 2.00 0.05719 -94 0.217247 0.085719 2.00 0.0253034 -95 0.223788 0.095719 2.00 0.0253034 -96 0.236989 0.095913 3.50 0.059913 -97 0.23698 0.095913 3.50 0.059910 -98 0.243480	φt η(λη) η(λη) η(λη) η(λη) η = Δ η	April Apr	Apt (λη) Th (λη)	April	April	Apt (λη) γ(λη) γ(λη) γ(λη) γη ππη μαν ματα ματα ματα ματα ματα ματα ματα	184 0.147371 0.055025 1.80 0.057835 1.80 0.057835 1.80 0.057835 1.80 0.057835 1.80 0.057835 1.80 0.057835 1.80 0.057835 1.80 0.057835 1.80 0.057835 1.80 0.057835 1.80 0.057835 1.80 0.057835 1.80 0.057835 1.90 0.057835 1.90 0.057835 1.90 0.057835 1.90 0.057843 0.057843 2.20 0.057843 0.057843 2.20 0.057843 0.057843 1.90 0.077844 0.0778443 1.20 0.0778443 0.0778443 1.20 0.0778443 1.20 0.0778443 1.20 0.0778443 1.20 0.0778443 1.20 0.0778443 1.20 0.0789395 1	10 10 10 10 10 10 10 10

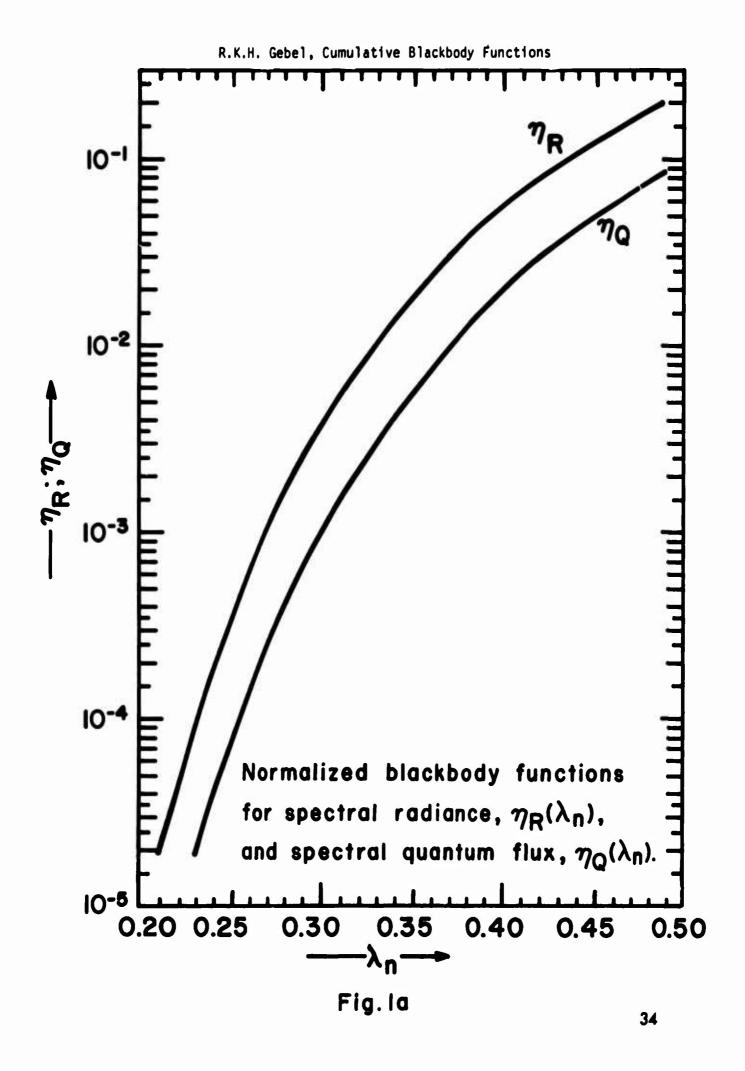
R.K.H.Gebel, Cumulative Blackbody Functions.

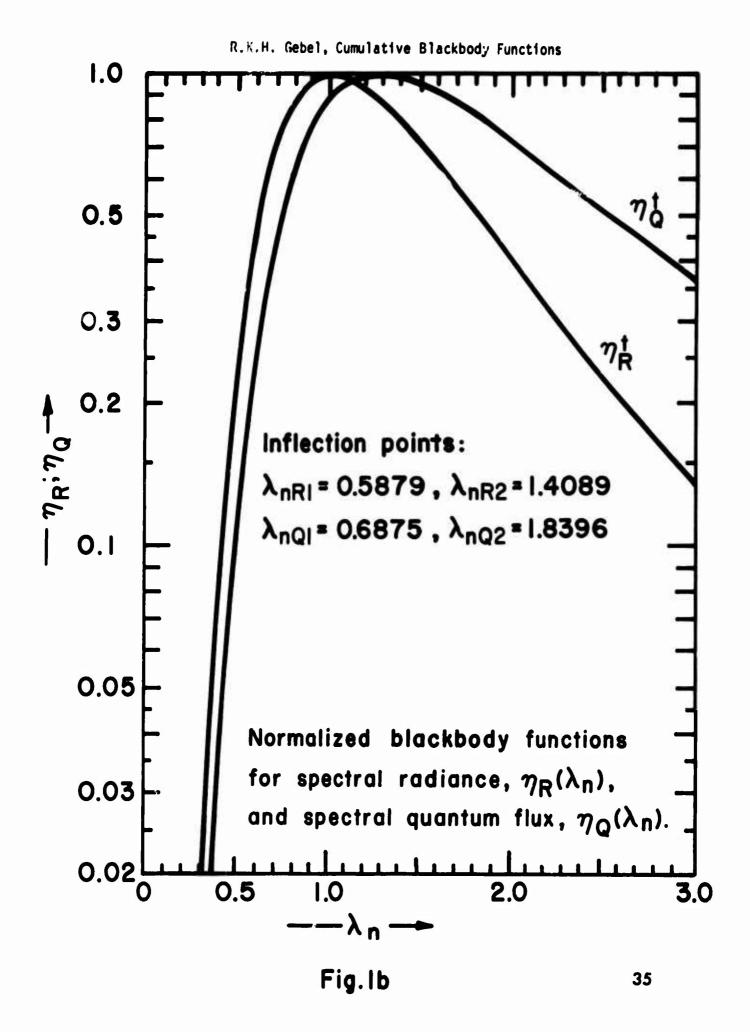
Cumulative blackbody peak radiation weight factor for radiant power, $\eta_R^{tt}(\lambda_n)$, and quantum flux, $\eta_Q^{tt}(\lambda_n)$. Table 4a.

$h = \frac{\lambda}{\lambda_{out}} + \eta_{ij}^{H}(\lambda_{ij})$
.52 0.05302
•53 0.06035
•54 0.06831
.55 0.07692
.56 0.08618
.57 0.09610
.58 0.10668
.59 0.11794
.60 0.12987
.61 0.14247
•62 0.15573
•63 0.16966
.64 0.18423
•65 0.19945
.66 0.21531
.67 0.23178
.68 0.24885
.69 0.26651
.70 0.28475
.71 0.30354
.72 0.32287
. 73 0.34272
74 0 40614
91004-0
0.42688
.78 0.44901
.79 0.47153
.80 0.49443
•81 0.51768
.82 0.54126
.83 0.56515
C1C0C*N

R.K.H.Gebel, Cumulative Blackbody Functions.

4.276653 4.415056 4.678758 5.156363 5.372023 5.573510 6.997295 7.437552 7.769492 8.025027 8.225478 8.385373 8.514825 8.621023 8.899204 8.945225 9.281150 9.389452 3.986424 4.133791 5.761770 5.937721 6.102244 6.256171 6.400283 8.709174 8.783117 8.985111 7世(ハロ) 4.925580 8.845731 fo Cumulative blackbody peak radiation weight factor $\eta_{\mathbf{k}}^{\mathsf{t}}(\lambda_{\mathsf{n}})$, and quantum flux, $\eta_{\mathbf{k}}^{\mathsf{t}}(\lambda_{\mathsf{n}})$. 3.667098 3.892979 3.943366 2.765199 2.878144 2.978867 3.149067 3.220920 3.285309 3.343110 3.395093 3.441932 3.484215 3.522460 3.759420 3.863018 3.931033 3.952896 3.960373 3.966320 3.971108 3.978209 2.703678 3.068757 3.820782 3.975005 3.996107 7 棋 (入 n) 2.823291 3.914791 λη <u>* χόρτ</u> 3.00 10.00 1.90 1.95 2.00 2.10 2.20 2.30 2.40 2.50 2.80 2.90 3.50 4.00 4.50 5.00 6.50 7.00 7.50 8.00 8.50 9.00 2.60 20.00 0.966579 2.467760 2.651228 2.831813 3.009040 3.182534 3.352009 0.654435 0.683588 0.743386 0.868479 0.900799 900000-1 1.171859 1.350165 1.906715 2.094697 2.282006 3.517256 0.933505 0.570159 0.625802 0.713244 0.173997 0.836560 1.719113 3.678127 0.597704 0.805061 .. 533121 がな。) radiant power, 0.688529 0.842676 0.868764 0.947389 0.973669 1.131186 .261010 1.388303 1.858140 2.064668 2.251472 2.337698 2.419334 2.496558 0.638474 0.790773 0.816674 0.921135 0.999962 .. 512203 .747484 2.160503 0.663397 0.739344 0.894922 1.632077 2.569557 0.713851 1.963887 7荒(入 ゚゚) 0.764991 4b. λη = Λορί 1.30 1.40 1.45 1.10 Table 0.87 0.88 0.89 0.90 0.92 0.93 0.94 0.95 0.97 0.98 0.98 1.00 1.15 1.20 1.25 1.35 1.50 1.55 1.60 1.65





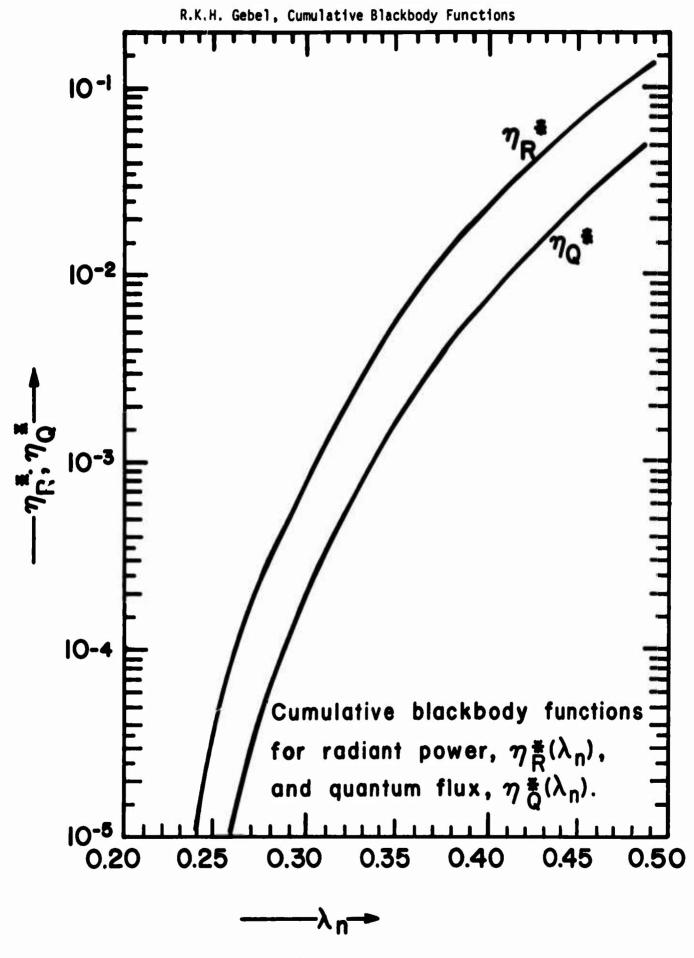
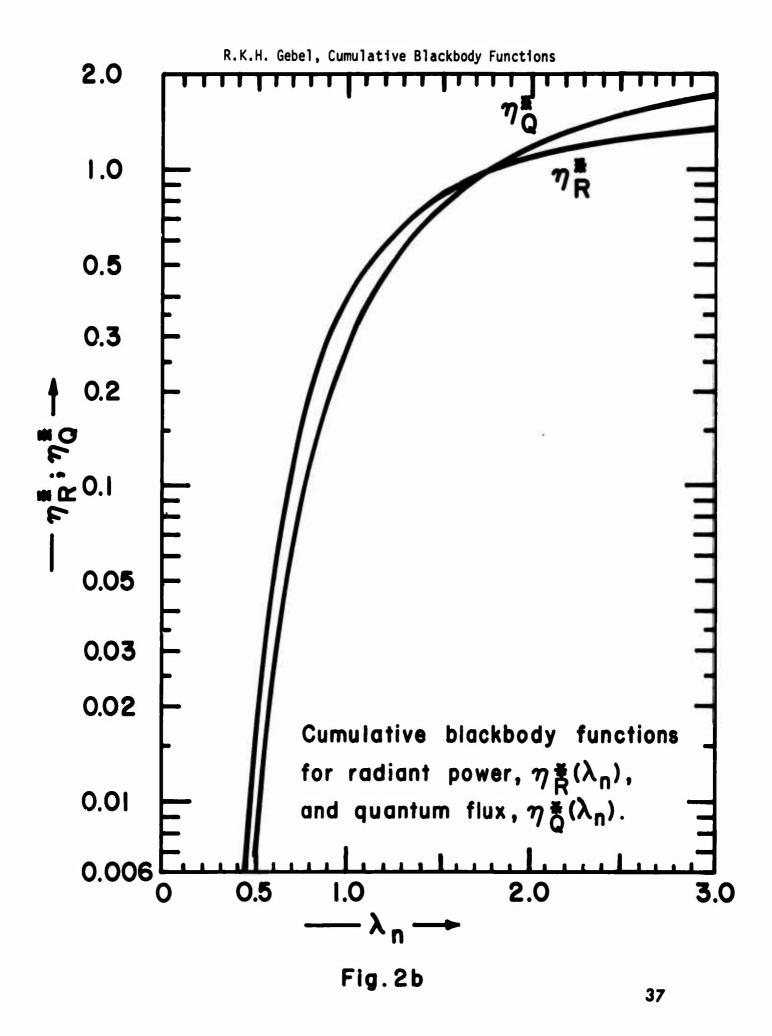


Fig. 2a



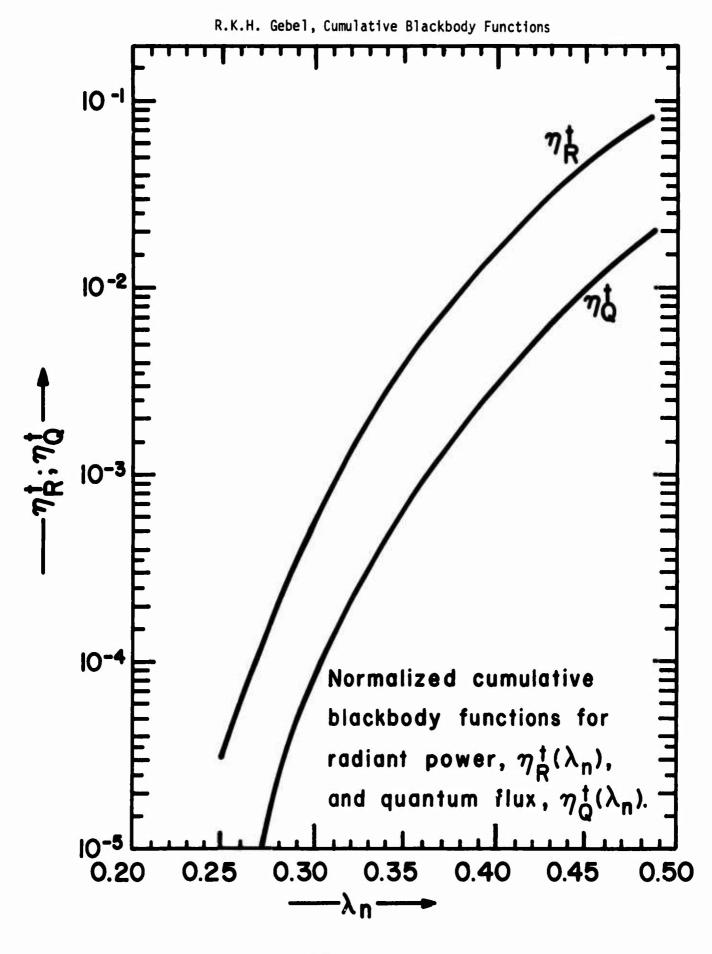
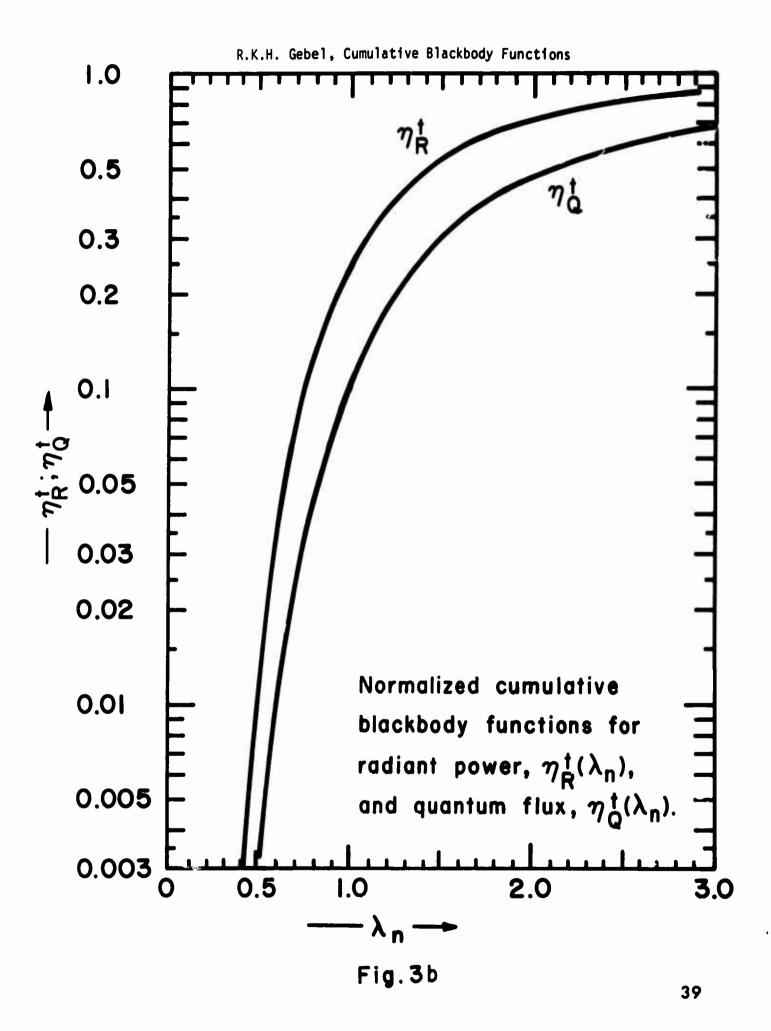
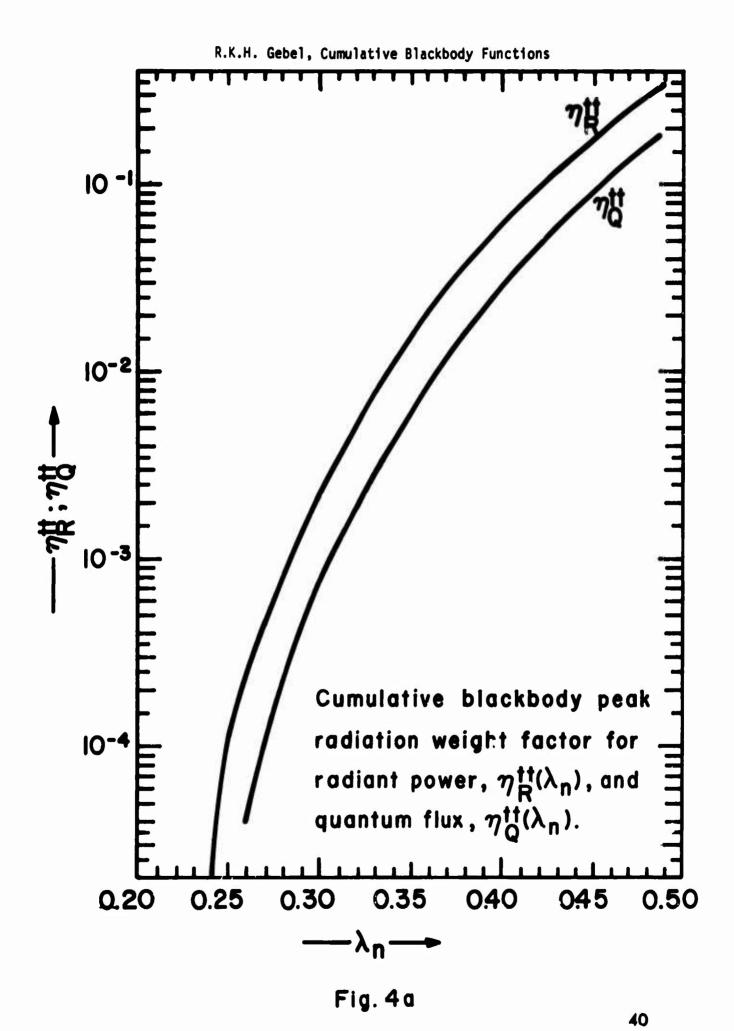
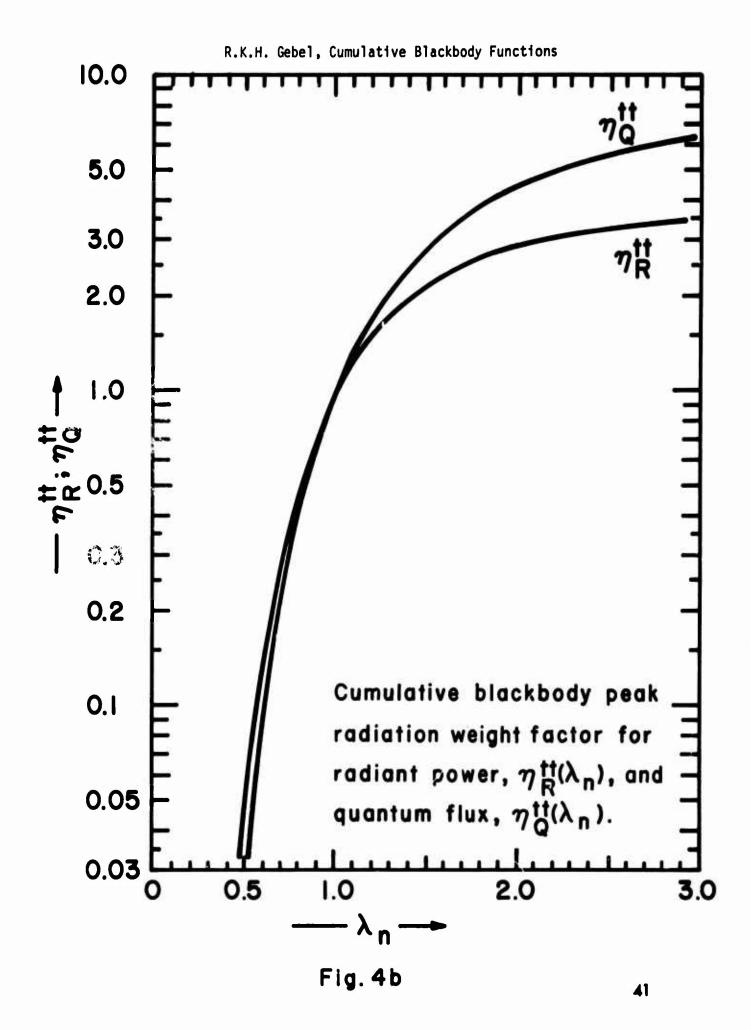


Fig. 3a







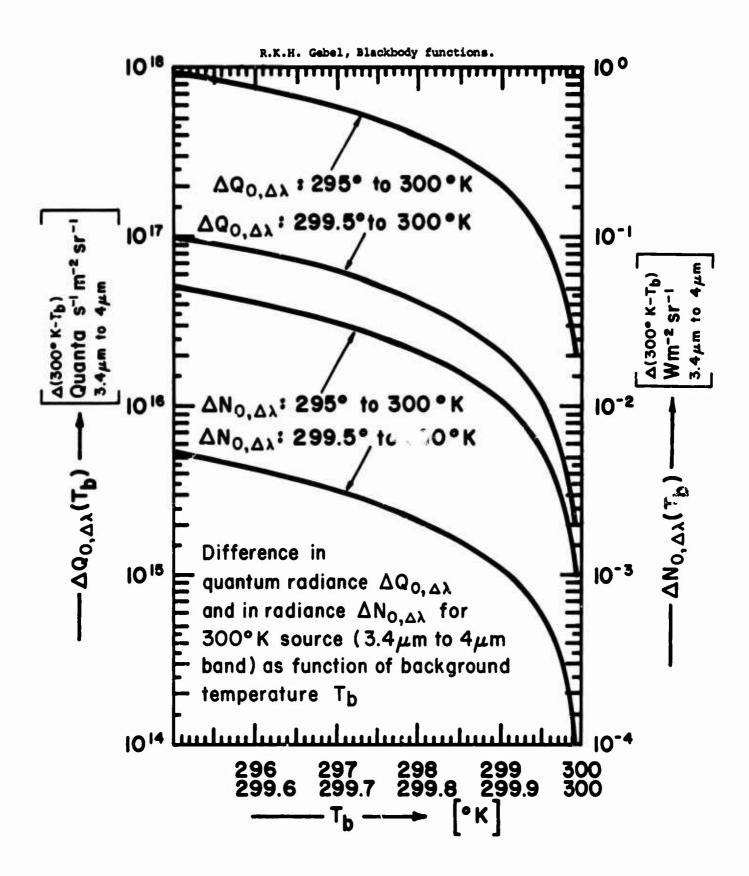


Fig. 5

- Quantum flux intensity -

Target source stields background

0 ^ 9

-ytiznətni xult mutnoup —

farget source

Spatial distribution over image detector-

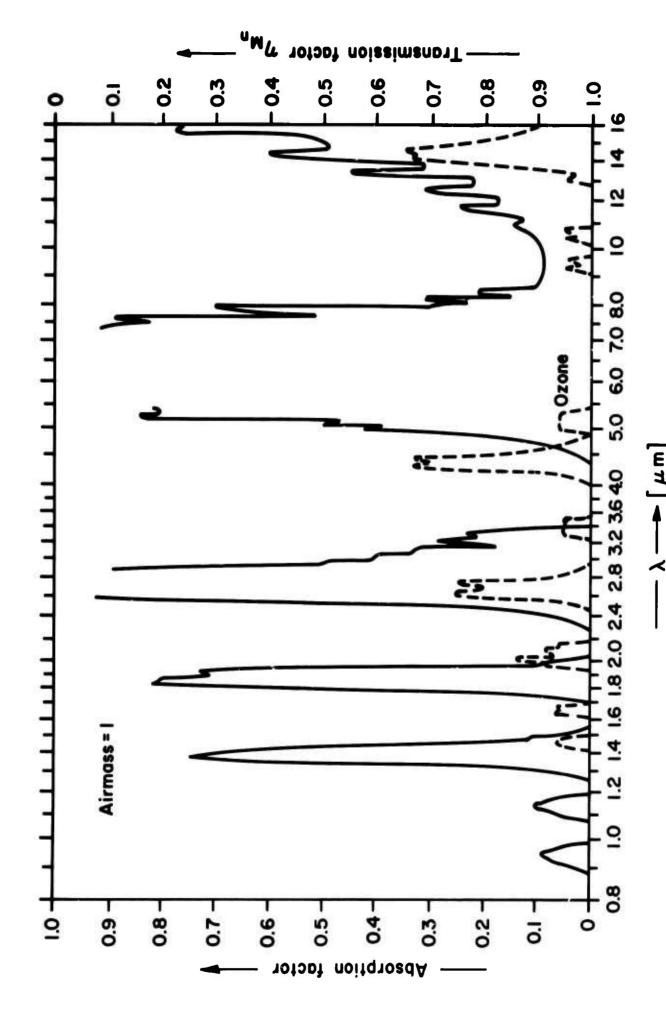


Fig.7 Absorption factor and transmission factor $\eta_{
m M_{n}}$ for normalized airmass.

R.K.H. Gebel, Cumulative Blackbody Functions

$\lambda_{\mathbf{n}}$	$\eta_{\mathbf{R}}^{\dagger}(\lambda_{\mathbf{n}})$	$\eta_{R}^{\dagger}(\lambda_{n})\!-\!\eta_{R}^{\dagger}(\lambda_{n-1})$	$\eta_{\mathbf{Q}}^{\dagger}(\lambda_{\mathbf{n}})$	$\eta_Q^{\dagger}(\lambda_n) - \eta_Q^{\dagger}(\lambda_{n-1})$
0.100				,
C.101	0.	0.	0.	0.
0.102	0.	0.	0.	0.
0.103	C.	0.	0.	0.
0.104	0.	0.	0.	0.
0.105	0.	0.	0.	0.
0.106	6.838518E-17 6.838518E-17	6.838518E-17	0.	0.
0.108	1.367704E-16	0. 6.838518E-17	0.	0.
0.109	2.051555E-16	6.838518E-17	0.	0.
0.110	3.419259E-16	1.367704E-16	0.	0.
0.111	5.470814E-16	2.051555E-16	0.	0.
0.112	7.522370E-16	2.051555E-16	0.	0.
0.113	1.094163E-15	3.419259E-16	0.	0.
0.114	1.641244E-15	5.470814E-16	9.236027E-17	9.236027E-17
0.115	2.325096F-15	6.838518E-16	9.236027E-17	0.
0.116	3.282489E-15	9.573925E-16	1.847205E-16	9.236027E-17
0.117	4.650192E-15	1.367704E-15	2.770808F-16	9.236027E-17
0.118	6.496592E-15	1.846400E-15	3.694411E-16	9.236027E-17
0.119	9.095229E-15	2.598637E-15	5.541616E-16	1.847205E-16
0.120	1.258287E-14	3.487644E-15	7.388822E-16	1.847205E-16
0.121	1.730145E-14	4.718577E-15	1.108323E-15	3.694411E-16
0.122	2.359289E-14	6.291436E-15	1.477764E-15	3.694411E-16
0.123	3.214103E-14	8.548147E-15	2.031926E-15	5.541616 ^c -16
0.124	4.342459E-14	1.1283558-14	2.770808E-15	7.388822E-16
0.125	5.846933E-14 7.830103E-14	1.504474E-14 1.983170E-14	3.786771E-15 5.172175E-15	1.015963E-15 1.385404E-15
0.127	1.043558E-13	2.605475E-14	7.019381E-15	1.847205E-15
0.128	1.384800F-13	3.412420E-14	9.328387E-15	2.309007E-15
0.129	1.827936E-13	4.431360E-14	1.246864E-14	3.140249E-15
0.130	2.403739E-13	5.758032E-14	1.653249E-14	4.063852E-15
0.131	3.145718E-13	7.419792E-14	2.179702E-14	5.264535E-15
0.132	4.100375E-13	9.546571E-14	2.863168E-14	6.834660E-15
0.133	5.322418E-13	1.222043E-13	3.740591E-14	8.774226E-15
0.134	6.880233F-13	1.557814E-13	4.876622E-14	1.136031E-14
0.135	E.859300F-13	1.979067E-13	6.317443E-14	1.440820E-14
0.136	1.136357E-12	2.504265E-13	8.164648E-14	1.847205E-14
0.137	1.452023E-12	3.156660E-13	1.051060E-13	2.345951E-14
0.138	1.848451E-12	3.964289E-13	1.347536E-13	2.964765E-14
0.139	2.344723E-12	4.9627128-13	1.721595E-13	3.740591E-14
0.140	2.963677E-12	6.189543E-13	2.191709E-13	4.701138E-14
0.141	3.733010E-12 4.686231E-12	7.693333E-13 9.532210E-13	2.780044E-13 3.513385E-13	5.883349E-14 7.333405E-14
0.143	5.863277E-12	1.177046E-12	4.425904E-13	9.125195E-14
0.144	7.312222E-12	1.448945E-12	5.557317E-13	1.131413E-13
0.145	9.090168E-12	1.777946E-12	6.955652E-13	1.398334E-13
0.146	1.126536F-11	2.175196E-12	8.677247E-13	1.721595E-13
0.147	1.391850E-11	2.653140E-12	1.079230E-12	2.115050E-13
0.148	1.714526F-11	3.226755E-12	1.338208E-12	2.589782E-13
0.149	2.105826E-11	3.913000E-12	1.654357E-12	3.161492E-13

R.K.H. Gebel, Cumulative Blackbody Functions

$\lambda_{\mathbf{n}}$	$η_{\mathbf{R}}^{\dagger}(\lambda_{\mathbf{n}})$	$\eta_{R}^{\dagger}(\lambda_{n}) - \eta_{R}^{\dagger}(\lambda_{n-1})$	$\eta_{\mathbf{Q}}^{\dagger}(\lambda_{\mathbf{n}})$	$\eta_Q^{\dagger}(\lambda_n) - \eta_Q^{\dagger}(\lambda_{n-1})$
0.150	2.579038E-11	4.732118E-12	2.039222E-12	3.848652E-13
0.151	3.149719E-11	5.706812E-12	2.506565E-12	4.673430E-13
0.152	3.836108E-11	6.863889E-12	3.072364E-12	5.657990E-13
0.153	4.659486E-11	8.233781E-12	3.755553E-12	6.831889E-13
0.154	5.644649E-11	9.851637E-12	4.578299E-12	8.227453E-13
0.155	6.820396E-11	1.175746E-11	5.566646E-12	9.883473E-13
0.156	8.220131E-11	1.399735E-11	6.750889E-12	1.184243E-12
0.157	9.882465E-11	1.662334E-11	8.166310F-12	1.415421E-12
0.158	1.185196E-10	1.969493E-11	9.854010E-12	1.687699E-12
0.159	1.417993E-10	2.327968E-11	1.186164E-11	2.007635E-12
0.160	1.692530E-10	2.745371E-11	1.424408E-11	2.382433E-12
0.161	2.015565E-10	3.230352E-11	1.706495E-11	2.820867E-12
0.162	2.394827E-10	3.792621E-11	2.039749E-11	3.332543E-12
0.163	2.839140E-10	4.443129E-11	2.432576E-11	3.928267E-12
C. 164	3.358556E-10	5.194162E-11	2.894626E-11	4.620507E-12
0.165	3.964506E-10	6.059501E-11	3.436957E-11	5.423303E-12
0.166	4.669964E-10	7.054574E-11	4.072174E-11	6.352170E-12
0.167	5.489621E-10	8.196572E-11	4.814686E-11	7.425119E-12
0.168	6.440091E-10	9.504699E-11	5.680868E-11	8.661823E-12
0.169	7.540120E-10	1.100029E-10	6.689331E-11	1.008463E-11
0.170	8.810827E-10	1.270707E-10	7.861180E-11	1.171849E-11
0.171	1.027596E-09	1.465132E-10	9.220289E-11	1.359109E-11
0.172	1.196218E-09	1.686216E-10	1.079366E-10	1.573376E-11
0.173	1.389935E-09	1.937174E-10	1.261173E-10	1.818066E-11
0.174	1.612090E-09	2.221555E-10	1.470879E-10	2.097058E-11
0.175	1.866417E-09	2.543268E-10	1.712335E-10	2.414565E-11
0.176	2.157078E-09	2.906612E-10	1.989869E-10	2.775334E-11
0.177	2.488709E-09	3.316308E-10	2.308326E-10	3.184573E-11
0.178	2.866463E-09	3.777534E-10	2.673128F-10	3.648018E-11
C.179	3.296058E-09	4.295954E-10	3.090332E-10	4.172043E-11
C.180	3.783835E-09	4.877766E-10	3.566692F-10	4.763601E-11
0.181	4.336808E-09	5.529734E-10	4.109731E-10	5.430387E-11
0.182	4.96 731E-09	6.259232E-10	4.727813F-10	6.180823E-11
0.183	5.67U160E-09	7.074285E-10	5.430229E-10	7.024156E-11
0.184	6.468522E-09	7.983622E-10	6.227276E-10	7.970470E-11
0.185	7.368194E-09	8.996 '16F-10	7.130360E-10	9.030839E-11
0.186	8.380578E-09	1.012384E-09	8.152091F-10	1.021731E-10
0.137	9.518190E-09	1.137612E-09	9.306394E-10	1.154303E-10
0.188	1.079475E-08	1.276559E-09	1.060863F-09	1.302234E-10
0.189	1.222527E-08	1.430525E-09	1.20757CE-09	1.467076E-10
0.190	1.382618E-08	1.600911E-09	1.372623E-09	1.650524E-10
0.191	1.561541E-08	1.789228E-09	1.558064F-09	1.854410F-10
0.192	1.761251E-08	1.997102E-09	1.766136E-09	2.080723E-10
0.193	1.98388CE-08	2.226282E-09	1.999297E-09	2.331608E-10
0.194	2.231744E-08	2.478645E-09	2.260236E-09	2.609394E-10
0.195	2.507365E-08	2.756203E-09	2.551895F-09	2.916586E-10
0.196	2.813476E-08	3.061114E-09	2.877484E-C9	3.255892E-10
0.197	3.153045E-08	3.395687E-09	3.240507E-09	3.630224E-10
0.198	3.529283E-08	3.762388E-09	3.644779E-09	4.042721E-10
C.199	3.945669E-08	4.163854E-09	4.094454F-09	4.49675CF-10

R.K.H. Gebel, Cumulative Blackbody Functions

0.200	$\lambda_{\mathbf{n}}$	$\eta_{R}^{\dagger}(\lambda_{n}^{})$	$\eta_R^{\dagger}(\lambda_n) - \eta_R^{\dagger}(\lambda_{n-1})$	$\eta_{\mathbf{Q}}^{\dagger}(\lambda_{\mathbf{n}})$	$\eta_{Q}^{\dagger}(\lambda_{n}) - \eta_{Q}^{\dagger}(\lambda_{n-1})$
0.201 4.914210E-08 5.082514E-09 5.148462E-09 5.454515E-10 0.203 6.092442E-08 6.176431E-09 6.443481E-09 6.804624E-10 0.204 6.772216E-08 6.176431E-09 6.443481E-09 7.526096E-10 0.205 8.340394F-08 8.208166E-09 8.945292E-09 9.176957E-10 0.207 9.240961E-08 8.208166E-09 8.945292E-09 9.176957E-10 0.207 9.240961E-08 9.005661E-09 9.957049E-09 1.011757E-09 0.208 1.022803E-07 9.870662E-09 1.1036E-08 1.114306E-09 0.219 1.130883E-07 1.080799E-08 1.229736E-08 1.114306E-09 0.210 1.249110E-07 1.82272E-08 1.364490E-08 1.347539E-09 0.211 1.378312E-07 1.292024E-08 1.674771E-08 1.223156E-09 0.212 1.519374E-07 1.49102E-07 1.985898E-08 1.85657E-08 1.778858E-09 0.214 1.840918E-07 1.676775E-08 2.047422E-08 1.7947653E-09 0.215 2.023480E-07 1.895898E-08 2.2493302E-08 2.328320E-09 0.216 2.222070E-07 1.985898E-08 2.2493302E-08 2.328320E-09 0.217 2.437904E-07 2.542804E-08 3.224857E-08 2.328320E-09 0.218 2.67274E-07 2.542804E-08 3.227132E-08 3.022749E-09 0.220 3.202203E-07 2.756483E-08 3.024857E-08 3.022749E-09 0.221 3.500765E-07 2.985624E-08 4.014471E-08 3.581633E-09 0.222 3.823880E-07 3.231152E-08 4.03846E-08 3.893752E-09 0.223 4.173284E-07 3.494033E-08 4.014471E-08 3.581633E-09 0.224 4.559812E-07 5.49553E-08 4.014471E-08 3.581633E-09 0.225 4.988406E-07 4.075945E-08 5.783685E-08 4.978303E-09 0.226 5.398119E-07 4.975945E-08 5.783685E-08 4.978303E-09 0.237 1.306072E-07 6.822981E-08 1.061635E-07 8.93245E-09 0.238 8.80905E-07 6.822981E-08 1.061635E-07 8.93232E-09 0.239 7.523326E-07 7.322769E-08 1.54261E-07 9.766589E-09 0.231 8.158607E-07 7.322769E-08 1.154261E-07 9.796689E-09 0.231 8.158607E-07 7.322769E-08 1.154261E-07 9.796689E-09 0.232 8.39811E-08 1.07163E-09 1.241528E-08 4.978303E-09 0.233 9.573181E-07 7.322769E-08 1.154261E-07 9.796689E-09 0.234 1.306672E-06 6.0152498E-08 1.54261E-07 1.45158E-09 0.243 2.451369F-06 1.032089E-07 1.87579E-07 1.46117E-08 1.55056E-08 0.241 1.763859E-06 1.250885E-07 2.76509E-07 1.73356E-09 2.020149E-08 1.154261E-07 1.241528E-08 1.25009E-07 1.1646117E-07 1.073868E-08 1.25009E-07 1.241528E-08 1.25009E-07 1.164611	0.200	4.405959E-08	4.602897E-09	4.594047E-09	4.995933E-10
0.203 6.092442E-08 6.176411E-09 7.196090E-09 7.526096E-10 0.205 7.519578E-08 7.473623E-09 8.027596E-09 8.315062E-10 0.206 8.3430394E-08 8.208166E-09 9.957049E-09 1.011757E-09 0.208 1.022803E-07 9.076662E-09 1.107136E-08 1.114306E-09 1.130883E-07 1.080799E-08 1.229736E-08 1.226001E-09 0.210 1.249110E-07 1.82272E-08 1.364490E-08 1.249316E-09 1.519374E-07 1.292024E-08 1.512456E-08 1.479661E-09 0.211 1.378312E-07 1.292024E-08 1.674771E-08 1.6732318E-07 1.676775E-08 2.047422E-08 1.778858E-09 0.214 1.840918E-07 1.676775E-08 2.047422E-08 1.778658E-09 0.215 2.023480E-07 1.825621E-08 2.26070E-08 2.3130476E-09 0.217 2.437904E-07 2.158336E-08 2.747525E-08 2.32320E-09 0.217 2.437904E-07 2.343703E-08 3.024857E-08 2.542232E-09 0.221 2.926554E-07 2.452804E-08 3.024857E-08 3.022749E-09 0.221 3.500765E-07 2.985624E-08 3.024857E-08 3.022749E-09 0.222 3.23380E-07 3.231152E-08 4.03846E-08 3.022749E-09 0.222 4.173284E-07 3.494033E-08 4.03846E-08 3.893752E-09 0.222 4.55812E-07 2.985624E-08 4.03484E-08 3.893752E-09 0.222 4.55812E-07 3.494033E-08 4.03846E-08 3.893752E-09 0.223 4.173284E-07 3.494033E-08 4.03846E-08 3.893752E-09 0.224 4.559812E-07 4.975945E-08 5.38681E-08 4.978303E-09 0.225 4.9788406E-07 4.075945E-08 5.38661E-08 4.978303E-09 0.226 5.398119E-07 6.35281E-08 5.39554E-08 4.998303E-09 0.226 5.398119E-07 6.822981E-08 1.061635E-07 9.976898E-09 0.228 6.382690E-07 5.105715E-08 6.323136E-08 6.331374E-09 0.229 6.392245E-07 6.822981E-08 1.061635E-07 9.976898E-09 0.231 8.158607E-07 6.822981E-08 1.061635E-07 1.241528E-08 0.231 1.20028E-06 8.417301E-08 1.361417E-07 1.241528E-08 0.231 1.20028E-06 0.32286E-07 1.201608E-07 1.355056E-08 0.231 1.20028E-06 0.32286E-07 1.201608E-07 1.355056E-08 0.231 1.20028E-06 0.103298E-07 1.734432E-07 1.241528E-08 0.244 1.73695E-06 1.258035E-07 2.37695E-07 1.241528E-08 1.256031E-07 1.250568E-08 0.231 1.409881E-06 1.03218E-07 2.37695E-07 1.241528E-08 0.244 2.193685E-06 1.524938E-07 2.37699E-07 1.355056E-08 0.244 2.193685E-06 1.728336E-07 2.76591E-07 2.36451E-08 2.566912E-07 2.36451E-08 2.566912E-07 2.36451	0.201	4.914210E-08		5.148462E-09	
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0.241 1.763859E-06 1.258085E-07 2.195745E-07 1.646112E-08 0.242 1.898082E-06 1.342223E-07 2.372095E-07 1.763502E-08 0.243 2.041190E-06 1.431102E-07 2.560901E-07 1.888061E-08 0.244 2.193685E-06 1.524933E-07 2.762916E-07 2.020149E-08 0.245 2.356079F-06 1.623936E-07 2.978930E-07 2.160137E-08 0.246 2.528912E-06 1.728337E-07 3.209771E-07 2.308412E-08 0.247 2.712749F-06 1.838368E-07 3.456308E-07 2.465373E-08 0.248 2.908176F-06 1.954269E-07 3.719452E-07 2.631436E-08					
0.242 1.898082E-06 1.342223E-07 2.372095E-07 1.763502E-08 0.243 2.041192E-06 1.431102E-07 2.560901E-07 1.888061E-08 0.244 2.193685E-06 1.524933E-07 2.762916E-07 2.020149E-08 0.245 2.356079F-06 1.623936E-07 2.978930E-07 2.160137E-08 0.246 2.528912E-06 1.728337E-07 3.209771E-07 2.308412E-08 0.247 2.712749F-06 1.838368E-07 3.456308E-07 2.465373E-08 0.248 2.908176F-06 1.954269E-07 3.719452E-07 2.631436E-08					
0.243 2.041192E-06 1.431102E-07 2.560991E-07 1.888061E-08 0.244 2.193685E-06 1.524933E-07 2.762916E-07 2.020149E-08 0.245 2.356079F-06 1.623936E-07 2.978930E-07 2.160137E-08 0.246 2.528912E-06 1.728337E-07 3.299771E-07 2.308412E-08 0.247 2.712749F-06 1.838368E-07 3.456308E-07 2.465373E-08 0.248 2.908176F-06 1.954269E-07 3.719452E-07 2.631436E-08					
0.244 2.193685E-06 1.524933E-07 2.762916E-07 2.020149E-08 0.245 2.356079F-06 1.623936E-07 2.978930E-07 2.160137E-08 0.246 2.528912E-06 1.728337E-07 3.209771E-07 2.308412E-08 0.247 2.712749F-06 1.838368E-07 3.456308E-07 2.465373E-08 0.248 2.908176F-06 1.954269E-07 3.719452E-07 2.631436E-08					
0.245 2.356079F-06 1.623936E-07 2.978930E-07 2.160137E-08 0.246 2.528912E-06 1.728337E-07 3.209771E-07 2.308412E-08 0.247 2.712749F-06 1.838368E-07 3.456308E-07 2.465373E-08 0.248 2.908176F-06 1.954269E-07 3.719452E-07 2.631436E-08					
0.246 2.528912E-06 1.728337E-07 3.209771E-07 2.308412E-08 0.247 2.712749F-06 1.838368E-07 3.456308E-07 2.465373E-08 0.248 2.908176F-06 1.954269E-07 3.719452E-07 2.631436E-08					
0.247 2.712749F-06 1.838368E-07 3.456308E-07 2.465373E-08 0.248 2.908176F-06 1.954269E-07 3.719452E-07 2.631436E-08					
0.248 2.908176F-06 1.954269E-07 3.719452E-07 2.631436E-08					
U.Z44	0.249	3.115805E-06	2.076296E-07	4.000155E-07	2.807028E-08

R.K.H. Gebel, Cumulative Blackbody Functions

$\lambda_{\mathbf{n}}$	$\eta_{R}^{\dagger}(\lambda_{n}^{})$	$\eta_{R}^{\dagger}(\lambda_{n}) - \eta_{R}^{\dagger}(\lambda_{n-1})$	$\eta_{\mathbf{Q}}^{\dagger}(\lambda_{\mathbf{n}})$	$\eta_Q^{\dagger}(\lambda_n) - \eta_Q^{\dagger}(\lambda_{n-1})$
0.250	3.336272E-06	2.204674E-07	4.299414E-07	2.992594E-08
0.251	3.570241E-06	2.339691E-07	4.618273E-07	3.188594E-08
0.252	3.818402E-06	2.481608E-07	4.957824E-07	3.395501E-08
0.253	4.081472E-06	2.630698E-07	5.319204E-07	3.613807E-08
0.254	4.360196E-06	2.787244E-07	5.703606E-07	3.844018E-08
0.255	4.655350E-06	2.951535E-07	6.112272E-07	4.086657E-08
0.256	4.967737E-06	3.123870E-07	6.546498E-07	4.342264E-08
0.257	5.298192E-06	3.304553E-07	7.007638E-07	4.611394E-08
0.258	5.647581E-06 6.016803E-06	3.493895E-07	7.497100E-07	4.894622E-08 5.192539E-08
0.260	6.406788E-06	3.692217E-07 3.899845E-07	8.016354E-07 8.566929E-07	5.505752E-08
0.261	6.818499E-06	4.117115E-07	9.150418E-07	5.834889E-08
0.262	7.252936E-06	4.344369E-07	9.768477E-07	6.180593E-08
0.263	7.711132E-06	4.581957E-07	1.042283E-06	6.543528E-08
0.264	8.194155E-06	4.830237E-07	1.111527E-06	6.924376E-08
0.265	8.703113E-06	5.089574E-07	1.184765E-06	7.323835E-08
0.266	9.239147E-06	5.360341E-07	1.262191E-06	7.742626E-08
0.267	9.803439E-06	5.642918E-07	1.344006E-06	8.181487E-08
0.268	1.039721E-05	5.937694E-07	1.430418E-06	8.641175E-08
0.269	1.102171F-05	6.245065E-07	1.521643E-06	9.122469E-08
0.270	1.167826E-05	6.565434E-07	1.617904E-06	9.626164E-08
0.271	1.236818E-05	6.899212E-07	1.719435E-06	1.015308E-07
0.272	1.309286E-05	7.246818E-07	1.826476E-06	1.070405E-07
0.273	1.385373E-05	7.608678E-07	1.939275E-06	1.127993E-07
0.274	1.465225E-05	7.985225E-07	2.058091E-06	1.188161E-07
0.275	1.548994E-05	8.376901E-07	2.183191E-06	1.250997E-07
0.276 0.277	1.636836E-05	8.784153E-07	2.314850E-06	1.3165948-07
0.278	1.728910E-05 1.825382E-05	9.207438E-07 9.647218E-07	2.453355E-06 2.599000E-06	1.385047E-07 1.456450E-07
0.279	1.926422E-05	1.010396E-06	2.752090E-06	1.530902E-07
0.280	2.032203E-05	1.057815E-06	2.912940E-06	1.608503E-07
0.281	2.142906E-05	1.107027E-06	3.081876E-06	1.689356E-07
0.282	2.259714E-05	1.158080E-06	3.259232E-06	1.773565E-07
0.283	2.379817E-05	1.211026E-06	3.445356E-06	1.861238E-07
0.284	2.506408E-05	1.265913E-06	3.640604E-06	1.952481E-07
0.285	2.638687E-05	1.322794E-06	3.845345E-06	2.047408E-07
0.286	2.776859F-05	1.381720E-06	4.059958E-06	2.146130E-07
0.287	2.921134E-05	1.442744E-06	4.284834E-06	2.248763E-07
0.288	3.071726E-05	1.505919E-06	4.520377E-06	2.355424E-07
0.289	3.228855E-05 3.392749E-05	1.571298E-06 1.638936E-06	4.767000E-06	2.466232E-07
0.291	3.563638E-05	1.708889E-06	5.025131E-06 5.295209E-06	2.581310E-07 2.700782E-07
0.292	3.741759E-05	1.781211E-06	5.577686E-06	2.824772E-07
0.293	3.927355E-05	1.855959E-06	5.873027E-06	2.953409E-07
0.294	4.120674E-05	1.933189E-06	6.181710E-06	3.086824E-07
0.295	4.321970E-05	2.012960E-06	6.5C4224F-06	3.225148E-07
0.296	4.531503E-05	2.095328F-06	6.841076E-06	3.3685175-07
0.297	4.749538E-05	2.180352E-06	7.192783E-06	3.517066E-07
0.298	4.976347E-05	2.268091E-06	7.559876E-06	3.670934E-07
0.299	5.212207E-05	2.358605E-06	7.942903E-06	3.830263E-07

R.K.H. Gebel, Cumulative Blackbody Functions

$\lambda_{\mathbf{n}}$	$\eta_{R}^{\dagger}(\lambda_{n}^{})$	$\eta_{R}^{\dagger}(\lambda_{n}) - \eta_{R}^{\dagger}(\lambda_{n-1})$	$\eta_{\mathbf{Q}}^{\dagger}(\lambda_{\mathbf{n}})$	$\eta_Q^{\dagger}(\lambda_n)$ - $\eta_Q^{\dagger}(\lambda_{n-1})$
0.300	5.457403E-05	2.451952E-06	8.342422E-06	3.995194E-07
0.301	5.712222E-05	2.548195E-06	8.759009E-06	4.165873E-07
0.302	5.976961E-05	2.647392E-96	9.193254E-06	4.342447E-07
0.303	6.251922E-05	2.749606E-06	9.645760E-06	4.525064E-07
0.304	6.537412E-05	2.854898E-06	1.011715E-05	4.713876E-07
0.305	6.833745E-05	2.963331E-06	1.060805E-05	4.909035E-07
0.306	7.141241E-05	3.074966E-06	1.111912E-05	5.110697E-07
0.307	7.460228E-05	3.189866E-06	1.165102E-05	5.319019E-07
0.308	7.791038E-05	3.308094E-06	1.220444E-05	5.534159E-07
0.309	8.134009E-05	3.429715E-06	1.278007E-05	5.756278E-07
0.310	8.489488E-05	3.554791E-06	1.337862E-05	5.985539E-07
0.311	8.8578275-05	3.683388E-06	1.400083E-05	6.222107E-07
0.312	9.239384E-05	3.815568E-06	1.464745E-05	6.466148E-07
0.313	9.634523E-05	3.951397E-06	1.531923E-05	6.717830E-07
0.314	1.004362F-04	4.090939E-06	1.601696E-05	6.977324E-07
0.315	1.046704E-04	4.234260E-06	1.674144E-05	7.244800E-07
0.316	1.090519E-04	4.381424E-06	1.749349E-05	7.520434E-07
0.317	1.135844E-04	4.532498E-06	1.827392E-05	7.804401E-07
^.318	1.182719E-04	4.687547E-06	1.908361F-05	8.096876E-07
0.319	1.231185E-04	4.846636E-06	1.992342E-05	8.398040E-07
0.320	1.281284E-04	5.009831E-06	2.079422E-05	8.708073E-07
0.321	1.333056E-04	5.177199E-06	2.169694E-05	9.027156E-07
0.322	1.386544E-04	5.348805E-06	2.263249E-05	9.355472E-07
0.323	1.441791E-04	5.524715E-06	2.360181E-05	9.693209E-07
0.324	1.498841E-04	5.704996E-06	2.460586E-05	1.004055E-06
0.325	1.557738E-04	5.889713E-06	2.564563E-05	1.039769E-06
0.326	1.618527E-04	6.078933E-06	2.672211E-05	1.076481E-06
0.327 0.328	1.681255E-04 1.745966E-04	6.272722E-06 6.471146E-06	2.783632E-05 2.898930E-05	1.114210E-06 1.152976E-06
0.329	1.812709E-04	6.674270E-06	3.01821CE-05	1.192778E-06
0.329	1.881530E-U4	6.882162E-06	3.141579E-05	1.233695E-06
0.330	1.9524796-04	7.094886E-06	3.269148F-05	1.275688E-06
0.332	2.025604E-04	7.312508E-06	3.401028E-05	1.318796E-06
0.333	2.100955E-04	7.535094E-06	3.537331E-05	1.363038E-06
0.334	2.178582E-04	7.762709E-06	3.678175E-05	1.408435E-06
0.335	2.258536E-04	7.995419E-06	3. 923675E-05	1.455006E-06
0.336	2.340869E-04	8.233289E-06	3.973953E-05	1.502773E-06
0.337	2.425633E-04	8.476382E-06	4.129128E-05	1.551755E-06
0.338	2.512881E-04	8.724765E-06	4.289325E-05	1.601972E-06
0.339	2.602666E-04	8.978500E-06	4.45467CE-05	1.653445E-06
0.340	2.695042E-04	9.237653E-06	4.625289E-05	1.706195E-06
0.341	2.790065E-C4	9.502286E-06	4.801314E-05	1.760243E-06
0.342	2.887790E-C4	9.772464E-06	4.982875E-05	1.815608E-06
0.343	2.988272E-04	1.004825E-05	5.170106E-05	1.872312E-06
0.344	3.091569E-04	1.032970E-05	5.363143E-05	1.930376E-06
0.345	3.197738E-04	1.061689E-05	5.562125E-05	1.989820E-06
0.346	3.306837E-04	1.090987F-C5	5.767192E-05	2.050665E-06
0.347	3.418924E-04	1.120871E-05	5.978485E-05	2.112934E-06
0.348	2.534059E-04	1.151346E-05	6.196150E-05	2.176646E-06
0.349	3.652301E-04	1.182419E-05	6.420332E-05	2.241823E-06

R.K.H. Gebel, Cumulative Blackbody Functions

$\lambda_{\mathbf{n}}$	$\eta_{R}^{\dagger}(\lambda_{n}^{})$	$\eta_R^{\dagger}(\lambda_n) - \eta_R^{\dagger}(\lambda_{n-1})$	$\eta_{\mathbf{Q}}^{\dagger}(\lambda_{\mathbf{n}})$	$\eta_Q^{\dagger}(\lambda_n) - \eta_Q^{\dagger}(\lambda_{n-1})$
0.350	3.773710E-04	1.214096E-05	6.651181E-05	2.308486E-06
0.351	3.898348E-04	1.246382E-05	6.388846E-05	2.376656E-06
0.352	4.026277E-04	1.2792845-05	7.133482E-C5	2.446354E-06
0.353	4.157557E-04	1.3128085-05	7.385242E-05	2.517603E-06
0.354	4.292253E-04	1.346959E-05	7.644284E-05	2.590423E-06
0.355	4.430428E-04	1.381742E-05	7.910767E-05	2.664835E-06
0.356	4.572144E-04	1.417165E-05	8.184854E-05	2.740861E-06
0.357	4.717467E-04	1.453232E-05	8.466706E-05	2.818522E-06
0.358	4.866462E-04	1.489949E-05	8.756490F-05	2.897839E-06
0.359	5.019194E-04	1.527321E-05	9.054373E-05	2.978835E-06
0.360	5.175730E-04	1.565355E-05	9.360526E-05	3.061530E-06
0.361	5.336135E-04	1.6040548-05	9.675121E-05	3.145945E-06
0.362	5.500478E-04	1.643426E-05	9.998331E-05	3.232103E-06
0.363	5.668825F-04	1.683474E-05	1.033033E-04	3.320023E-06
0.364	5.841246E-04	1.724204E-05	1.067131E-04	3.409729E-06
0.365	6.017808E-04	1.765622E-05	1.102143E-04	3.501240E-06
0.366	6.198581E-04	1.807731E-05	1.138089F-04	3.594578E-06
0.367	6.383635E-04	1.850538E-05	1.174986E-04	3.689765E-06
0.368	6.573040E-04	1.894347F-05	1.212855E-04	3.786821E-06
0.369	6.766866F-04	1.938263E-05	1.251712E-C4	3.885768E-06
0.370	6.965185E-04	1.983191E-05	1.291579E-04	3.986626F-06
0.371	7.169068E-04	2.028835E-05	1.332473F-04	4.089417E-06
0.372	7.375588E-04	2.075199E-05	1.374414E-04	4.194162E-06
0.373	7.587817F-04	2.122289E-05	1.417423E-04	4.300881E-06
0.374	7.804828E-04	2.170109E-05	1.461519E-04	4.409595E-06
0.375	8.026695E-04	2.218664E-05	1.506722E-04	4.520326E-06
0.376	8.2534905-04	2.267956E-05	1.553053E-04	4.633093E-06
0.377	8.485289E-04	2.317991E-05	1.600533E-04	4.747918E-06
0.378	8.722167E-04	2.368773E-05	1.649181F-04	4.864820E-06
0.379	8.964197E-04	2.420305E-05	1.699019E-04	4.983821E-06
0.380	9.211456E-04	2.472592E-05	1.750068E-04	5.1C494GE-06
0.381	5.464020F-04	2.525638E-05	1.80235CE-C4	5.228198E-06
0.382	9.721965E-04	2.579445E-05	1.855886F-04	5.353615E-06
0.383	9.985366E-04	2.634018F-05	1.910699E-04	5.481211E-06
0.384	1.025430E-03	2.689361E+05 2.745476E+05	1.966809E-04 2.024239E-04	5.611006E-06 5.743019E-06
0.336	1.0909095-03	2.802367E-05	2.083012E-04	5.877270E-06
0.387	1.109509E-03	2.860038E-05	2.143149E-C4	6.013779E-06
0.348	1.138694E-03	2.918491E-05	2.204675E-04	6.152566E-06
0.389	1.168471E-03	2.977730F-05	2.267611E-04	6.293648E-06
0.390	1.198849E-03	3.037757E-05	2.331982E-04	6.437047E-06
0.391	1.2298355-03	3.098576E-05	2.39781 CE-04	6.582780E-06
0.392	1.261436E-03	3.160189E-05	2.455118F-04	6.730866E-06
0.393	1.293662E-03	3.222599E-05	2.533932E-C4	6.881324E-06
0.394	1.326521F-C3	3.285808E-05	2.604273E-04	7.034174E-06
0.395	1.360019E-03	3.349820E-05	2.676168E-04	7.189432E-06
0.396	1.394165E-03	3.414636E-05	2.749639E-C4	7.347117E-06
0.397	1.428968F-03	3.480259E-05	2.824711E-C4	7.507248E-06
0.378	1.464435E-03	3.546690E-05	2.90141CE-04	7.669843F-06
0.399	1.500574E-03	3.613933E-05	2.979759E-04	7.834918E-06

R.K.H. Gebel, Cumulative Blackbody Functions

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\eta_{R}^{\dagger}(\lambda_{n}) - \eta_{R}^{\dagger}(\lambda_{n-1})
          \eta_{R}^{\dagger}(\lambda_{n})
                                          \eta_{\mathbb{Q}}^{\dagger}(\lambda_{n})
                                                       \eta_{Q}^{T}(\lambda_{n}) - \eta_{Q}^{T}(\lambda_{n-1})
λn
1.400
        1.537394E-03
                        3.681989E-05
                                         3.059784E-04
                                                         8.002492E-06
0.401
        1.5749025-03
                        3.750859E-05
                                         3.14151CE-04
                                                         8.172583E-06
                                                         8.345206E-06
0.402
        1.613108E-03
                        3.820547E-05
                                         3.224962E-04
                        3.891053E-05
0.403
        1.652018E-03
                                         3.310166E-04
                                                         8.520380E-06
        1.691642E-03
                        3.9623782-05
                                         3.397147E-04
0.404
                                                         8.698121E-06
0.405
        1.731987E-03
                        4.034526E-05
                                         3.485931E-04
                                                         8.878446E-06
0.406
        1.773062F-03
                        4.107496E-05
                                         3.576545E-04
                                                         9.061371E-06
0.407
        1.814875E-03
                        4.181290E-05
                                         3.6690145-04
                                                         9.246913E-06
0.438
        1.857434E-03
                        4.255910E-05
                                         3.763365E-04
                                                         9.435087E-06
                                                         9.625911E-06
0.409
        1.900748E-03
                        4.331356E-05
                                         3.859624E-04
0.410
        1.944824E-03
                        4.407630E-05
                                         3.957818E-04
                                                         9.819398E-06
                        4.484731E-05
0.411
        1.989672E-03
                                         4.057974E-04
                                                         1.001557E-05
0.412
        2.035298E-03
                        4.562663E-05
                                         4.160118E-04
                                                         1.021443E-05
0.413
        2.081712E-03
                        4.641423E-05
                                         4.264278E-04
                                                         1.041600E-05
                        4.721015E-05
                                         4.370481E-04
0.414
        2.128923E-03
                                                         1.062030E-05
                                         4.478754E-04
0.415
        2.176937E-03
                        4.801437E-05
                                                         1.082733E-05
        2.225764E-03
                                         4.589126E-04
0.416
                        4.882690E-05
                                                         1.103713E-05
0.417
        2.275412E-03
                        4.964775E-05
                                        4.701622E-04
                                                         1.124968E-05
0.418
        2.325889E-03
                        5.047691E-05
                                         4.816273E-04
                                                         1.146503E-05
0.419
        2.377203E-03
                        5.131440E-05
                                         4.933104E-04
                                                         1.168316E-05
0.420
        2.429363E-03
                        5.216020E-05
                                        5.052145E-04
                                                         1.190411E-05
0.421
                        5.301431E-05
                                        5.173424E-04
        2.482377E-03
                                                         1.212788E-05
0.422
                                        5.296969E-04
        2.536254E-03
                        5.387674E-05
                                                         1.235448E-05
        2.591002E-03
                        5.474749E-05
                                                         1.258394E-05
0.423
                                        5.422808E-04
0.424
        2.646628E-03
                        5.562653E-05
                                        5.550971E-04
                                                         1.281625E-05
0.425
        2.703142E-03
                        5.651388E-05
                                        5.681485E-04
                                                         1.305144E-05
        2.760552E-03
                        5.740953E-05
                                                         1.328952E-05
0.426
                                        5.814381E-04
0.427
        2.818865E-03
                        5.831346E-05
                                        5.949685E-04
                                                         1.353049E-05
0.428
        2.878091E-03
                        5.922567E-05
                                        6.087429E-04
                                                         1.377437E-05
0.429
        2.938237E-03
                                                         1.402117E-05
                        6.014616E-05
                                        6.227641E-04
0.430
        2.999312E-03
                        6.107490E-05
                                        6.370350E-04
                                                        1.427091E-05
0.431
        3.0613246-03
                        6.201190E-05
                                        6.515586E-04
                                                         1.452358E-05
0.432
        3.124281E-03
                        6.295713E-05
                                        6.663378E-04
                                                        1.477921E-05
0.433
                        6.391059E-05
        3.188191E-03
                                        6.813756E-04
                                                        1.503781E-05
                                        6.966750E-04
0.434
        3.253064E-03
                        6.487226E-05
                                                        1.529938E-05
                                                        1.556393E-05
0.435
        3.318906E-03
                        6.584212E-05
                                        7.122389E-04
0.436
        3.385726F-03
                        6.682017E-05
                                        7.280704E-04
                                                        1.583147E-05
0.437
        3.453532E-03
                        6.780638E-05
                                        7.441724E-04
                                                        1.610202E-05
        3.522333E-03
0.438
                        6.880074E-05
                                        7.605480E-04
                                                        1.637558E-05
0.439
        3.592136E-03
                        6.980322E-05
                                        7.772001E-04
                                                        1.665216E-05
0.440
        3.662950E-03
                        7.081381E-05
                                        7.941319E-04
                                                        1.693177E-05
0.441
        3.734783F-03
                        7.183250E-05
                                        8.113463E-04
                                                        1.721442E-05
0.442
        3.807642E-03
                        7.285924E-05
                                        8.288464E-04
                                                        1.750011E-05
0.443
        3.881536E-03
                        7.389404E-05
                                        8.466353E-04
                                                        1.778886E-05
0.444
        3.956473E-03
                        7.493685E-05
                                        8.647160E-04
                                                        1.808067E-05
                        7.598767E-05
0.445
                                        8.830915E-04
        4.032460E-03
                                                        1.837555E-05
0.446
        4.109507F-03
                        7.704646E-05
                                                        1.867350E-05
                                        9.017650E-04
0.447
        4.187620E-03
                        7.811319E-05
                                        9.207396E-04
                                                        1.897454E-05
0.448
                        7.918785E-05
        4.266808E-03
                                        9.400182E-04
                                                        1.927867E-05
0.449
        4.347078E-03
                        8.027040E-05
                                        9.596041E-04
                                                        1.958589E-05
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R.F.H. Gebel, Cumulative Blackbody functions

```
n_{\mathbf{R}}(\lambda_n)
                       \eta_{\mathbf{R}}^{\prime}(\lambda_{\mathbf{R}}) - \eta_{\mathbf{R}}^{\prime}(\lambda_{\mathbf{R}-1})
                                           n_0(\lambda_n)
                                                        \eta_{\mathcal{Q}}(\lambda_n) - \eta_{\mathcal{Q}}(\lambda_{n-1})
\lambda_n
0.457
         4.4244595-01
                         H. 1360H2F-05
                                                         1.9896216-05
                                         4. 1950031-04
0.451
         4.510898F-03
                         H. 24590HE-05
                                         9. 997100E-04
                                                         2.0209656-05
0.452
         4.59446 31 -03
                         8.3565 LSE - 05
                                         1.0202366-03
                                                         2.0526196-05
0.453
         4.6791421-03
                         4.4678996-05
                                         1.041082F-03
                                                         2.0845856-05
0.454
         4.764943F-03
                         8.5800586-05
                                         1.0622516-03
                                                         2.1108641-05
0.455
        4.851873E-03
                         M.692988E-05
                                         1.083745F-03
                                                         2.149455E-05
0.456
         4.93994CE-05
                         8.806687E-05
                                         1.105569E-03
                                                         2.182359E-05
0.457
        5.029151E-03
                         9.921150E-05
                                         1.127725E-03
                                                         2.215578E-05
0.458
        5.119515F-03
                         9.0363746-05
                                         1.1502166-03
                                                         2.24911CE-05
0.459
        5.211038E-03
                        9.152357E-05
                                         1.173045F-03
                                                         2.282956F-05
0.460
        5.303729E-03
                         9.269093F-05
                                         1.196216F-03
                                                         2.3171186-05
0.461
        5.397595E-03
                        9.386580E-05
                                         1.2197328-03
                                                         2.3515946-05
0.467
        5. 192643F-03
                        9.5046146-05
                                         1.2435966-03
                                                         2.3863866-05
0.463
        5.588881F-03
                        9.623791E-05
                                         1.267811E-03
                                                         2.421493E-05
0.464
        5.686316E-03
                        9.743507E-05
                                         1.292380F-03
                                                         2.456916E-05
0.465
        5.794956F-03
                        9.863958F-05
                                         1.317307E-03
                                                         2.4526558-05
0.466
        5.884807E-03
                        9.995140E-05
                                         1.342594E-03
                                                         2.5287116-05
0.467
        5.985878E-03
                        1.010705E-04
                                         1.3682455-03
                                                         2.5650828-05
0.468
        6.788175E-03
                        1.022968E-04
                                         1.394263F-03
                                                         2.601771E-05
                                                         2.638775E-05
0.469
        6.191705E-03
                                         1.420650E-03
                        1.035303E-04
0.470
        6.296476E-03
                        1.047710E-04
                                         1.447411E-03
                                                         2.676097E-05
0.471
                                                         2.713735E-05
        6.402495E-03
                        1.060187E-04
                                         1.474549F-03
0.472
        6.509768F-03
                        1.072735E-04
                                         1.502065E-03
                                                         2.751690E-05
                                                         2.789962F-05
0.473
        6.618304E-03
                        1.085354E-04
                                         1.529965E-03
0.474
        6.72810BE-03
                        1.098042F-04
                                         1.558251E-03
                                                         2.828551E-05
                                                         2.867456E-05
0.475
        6.839188E-03
                        1.110799E-04
                                         1.586925E-03
        6.951550E-03
                                         1.615992E-03
                                                         2.906678E-05
0.476
                        1.123624E-04
        7.065202E-03
                        1.136518E-04
0.477
                                         1.645454E-03
                                                         2.946216E-05
                                         1.675315E-03
                                                         2.986071E-05
0.478
        7.180150E-03
                        1.149480E-04
0.479
        7.296401E-03
                        1.162509E-04
                                         1.705577E-03
                                                         3.026242E-05
                                                         3.066729E-05
0.480
        7.413961E-03
                        1.175605E-04
                                         1.736245E-03
0.481
                                         1.767320E-03
                                                         3.107532E-05
        7.532838E-03
                        1.188768E-04
0.482
        7.653038E-03
                        1.201996E-04
                                         1.798806E-03
                                                         3.148650E-05
0.483
        7.774567E-03
                        1.215289E-04
                                         1.830707E-03
                                                         3.190084E-05
0.484
        7.897431E-03
                        1.2286476-04
                                         1.863026E-03
                                                         3.231833E-05
0.485
        8.021638E-03
                        1.2420 70E-04
                                         1.875764E-03
                                                         3.273897E-05
                                         1.928927E-03
0.486
                        1.255556E-04
                                                         3.316275E-05
        8.147194E-03
0.487
        8.274105E-03
                        1.269106E-04
                                         1.962517E-03
                                                         3.358967E-05
0.438
        8.402376E-03
                        1.282718E-04
                                         1.996537E-03
                                                         3.401973F-05
                                                         3.445293E-05
0.489
        8.532016E-03
                        1.296392E-04
                                         2.0309908-03
0.490
                        1.310128E-C4
                                                         3.488925E-05
        8.663028E-03
                                         2.065879E-03
0.491
                                         2.101208E-03
        8.795421E-03
                        1.323926E-04
                                                         3.532870E-05
0.492
        8.929199E-03
                        1.337783E-04
                                         2.136979E-03
                                                         3.577127E-05
0.493
        9.064369E-03
                        1.351701E-04
                                         2.173196E-03
                                                         3.621695E-05
0.494
                                                         3.666575E-05
        9.200937E-03
                        1.365678E-04
                                         2.209861E-03
                        1.379714E-04
0.495
        9.338909E-03
                                         2.246979E-03
                                                         3.711765E-05
                        1.3938085-04
0.496
        9.478289E-03
                                        2.284552E-03
                                                         3.757264E-05
0.497
        9.619086E-03
                                         2.322583E-03
                                                         3.803074E-05
                        1.407960E-04
0.498
        9.761302E-03
                        1.422170E-04
                                         2.361074E-03
                                                         3.849191E-05
0.499
                        1.436435E-04
                                         2.400031E-03
                                                         3.895617E-05
        9.904946E-03
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R.F.H. Gebel, Cumulative Blackbody functions

$\frac{\lambda}{n}$	$n_{\mathbf{p}}^{\tau}(\lambda_{\mathbf{p}})$	$r_{1n}^{-1}(\gamma_n) \sim r_{1n}^{-1}(\lambda_{n+1})$	$\eta_{\mathcal{O}}^{\dagger}(\lambda_{n})$	$n_Q^{\dagger}(\lambda_n) - n_Q^{\dagger}(\lambda_{n-1})$
0.500	1.0050021-02	1.4507576-04	2.419454E-03	3.9423511-05
0.501	1.0196546-07	1.4051 341 -04	2.4793486-03	3.989391f-05
0.502	1.0344491-02	1.479566-04	2.519715E-03	4.0367376-05
0.503	1.055 1901-02	1.4940538-04	2.5605596-03	4.084389F-05
6.504	1.)64476[-02	1.5085936-04	2.6014836-03	4.132345E-05
0.505	1.0191376-02	1.5231866-04	2.6436896-03	4.1806058-05
0.506	1.0950866-02	1.5378326-04	2.68598CE-03	4.229168E-05
0.507	1.1106116-02	1.5525295-04	2.728761E-03	4.278033E-05
0.50B	1.1.62848-02	1.5672786-04	2.772013E-03	4.327200E-05
0.519	1.1421056-02	1.582U77E-04	2.81.7791-03	4.376668E-05
2.510	1.158074F-C?	1.5969268-04	2.840064E-03	4.4264358-05
C.511	1.174192E-02	1.6118256-04	2.9048298-03	4.476501E-05
0.512	1.1904608-02	1.6267736-04	2.950097F-03	4.526865E-05
0.513	1.206878F-02	1.641769E - 04	2.9958736-03	4.5775268-05
0.514	1.223446F-02	1.656812F-04	3.042158E-03	4.628483E-05 4.679735E-05
0.516	1.240165E-02 1.257035E-02	1.671902E-04 1.687039E-04	3.088955E-03 3.136268E-03	4.7312825-05
0.517	1.274057E-02	1.702222E-04	3.184099E-03	4.783121E-05
0.518	1.291232F-02	1.7174498-04	3.232451E-03	4.835253E-05
0.519	1.308559E-02	1.732721E-04	3.281328E-C3	4.887675E-05
0.520	1.326039E-02	1.748037E-04	3.330732E-03	4.940388E-05
0.521	1.343673E-02	1.763396E-04	3.380666E-03	4.993389F-05
0.522	1.361461F-02	1.778797E-04	3.4311336-03	5.046679E-05
0.523	1.379404E-02	1.7942405-04	3.482135E-03	5.100255E-05
0.524	1.397501F-02	1.809725E-04	3.533676E-03	5.154116E-05
C.525	1.415753F-02	1.825250E-04	3.585759E-03	5.208262E-05
0.526	1.434162E-02	1.840816F-04	3.638186E-03	5.262692E-05
0.527	1.452726E-02	1.956420E-04	3.67156CE-03	5.317403E-05
0.529	1.471446E-02	1.872064E-04	3.745284E-03	5.372395E-05
0.529	1.490324E-02	1.8877456-04	3.799561E-03	5.427667E-05
0.530	1.509359F-02	1.903464E-04	3.854393E-03	5.483218E-05
0.531	1.528551E-02	1.919219E-04	3.9)9783F-03	5.539045E-05
0.532	1.547901E-02	1.935011E-04	3.965735F-03	5.595149E-05
0.534	1.567409E-02 1.597076E-02	1.950838E-04 1.966700E-04	4.022250E-03 4.079332E-03	5.651527E-05 5.708178E-05
0.535	1.6069C2E-02	1.982597E-04	4.136983E-03	5.765101E-05
0.536	1.626887F-02	1.998526E-04	4.195206F-03	5.822295E-05
0.537	1.647032F-02	2.014489E-04	4.254003E-03	5.879759E-05
0.538	1.667337F-02	2.030484E-04	4.313378E-03	5.937490E-05
0.539	1.687802F-02	2.046510E-04	4.373333E-03	5.995488E-05
0.540	1.708428F-02	2.062568E-04	4:433871E-03	6.053751E-05
0.541	1.729215F-02	2.078656E-04	4.494993E-03	6.112278E-05
0.542	1.750162E-02	2.094773E-04	4.556704E-03	6.171067E-05
0.543	1.771271E-02	2.110919E-04	4.619005E-03	6.230117E-05
0.544	1.792542E-02	2.127094E-04	4.681900E-03	6.289427E-05
0.545	1.813975E-02	2.143296E-04	4.745390E-03	6.348995E-05
0.546	1.835571E-02	2.159526E-04	4.809478E-03	6.408819E-05
0.547	1.857328E-02	2.175782E-04	4.874167E-03	6.468898E-05
0.548	1.879249E-02	2.192063E-04	4.939459E-03	6.529231E-05

R.F.H. Gebel, Cumulative Blackbody functions

λ _n	$n_n^{-1}(\lambda_n)$	$\eta_{\mathbf{R}}^{\dagger}(\lambda_{\mathbf{n}})\!-\!\eta_{\mathbf{R}}^{\dagger}(\lambda_{\mathbf{n}-1})$	$n_Q^{\dagger}(\lambda_n)$	$\eta_Q^{\dagger}(\lambda_{\hat{n}}) \circ \eta_Q^{\dagger}(\lambda_{\hat{n}-1})$
0.549	1.901133F-02	2.2081701-04	5.0651576-63	6.5098161-05
0.550	1.9215801-02	2.2247010-04	5.071M64E-03	6.6506521-05
0.551	1.3459906-02	2.2410566-04	5.138981E-03	6.711/36(-05
0.552	1.9685651-02	2.2574346-04	5.206/126-03	6.1130681-05
0.553	1.9913035-02	2.273835E-04	5.275058E-03	6.8346461-05
0.554	2.014206E-C2	2.290258F-04	5.344023[-03	6.8964685 -05
0.555	2.0372736-02	2.306/016-04	5.4136081-03	6.9985331-05
0.556	2.060504E-02	2.323166E-04	5.483817E-03	7.020839E-05
0.55/	2.0839C1F-02	2.339650E-04	5.554050E-C3	7.083385F-05
0.558	2.1074626-02	2.356154E-04	5.6261126-03	7.14616BE-05
0.559	2.131189E-02	2.372576F-04	5.698204E-03	7.209188F-05
0.560	2.155081E-02	2.3892166-04	5.770929E-03	1.272443F-05
0.561	2.179139E-02	2.405774F-04	5.844288E-03	7.335930E-C5
0.562	2.2033625-02	2.422348F-04	5.918284F-03	7.399649E-05
0.563	2.227757E-02	2.438939E-04	5.992920F-03	7.4635986-05
0.564	2.252307E-02	2.4555456-04	6.068198E-03	7.5277748-05
0.565	2.2770298-02	2.472166E-04	6.144120E-C3	7.592177E-05
0.566	2.301917E-02	2.488801E-04	6.220688E-03	7.656805E-05
0.567	2.326972E-02	2.5054506-04	6.2974048-03	7.721655E-05
0.568	2.352193E-02	2.5221126-04	6.375772E-03	7.786727F-05
0.569	2.377580E-02	2.538786E-04	6.4;4292E-03	7.852018E-05
0.570	2.403135E-02	2.555472E-04	6.533467E-03	7.917527E-05
0.571	2.428857E-02	2.572169E-04	6.613300E-03	7.983252E-05
0.572	2.454746E-02	2.5888766-04	6.6937928-03	8.049191E-05
0.573	2.480802E-02	2.6055935-04	6.774945E-03	8.115343E-05
0.574	2.507025E-02	2.6223208-04	6.856762E-03	8.181705E-05
0.575	2.533415E-02	2.639U55E-04	6.939245E-03	8.248277E-05
0.576	2.5599738-02	2.655778E-04	7.022395E-03	8.315055E-05
0.577	2.586699F-02	2.672549E-04	7.106216E-03	8.382040E-05
0.578	2.613592F-02	2.689306E-04	7.190708E-03	8.449227E-05
0.579	2.640653E-02	2.706070E-04	7.275874E-03	8.516617E-05
0.580	2.667881E-02	2.722839E-04	7.361716F-03	8.584277E-05
0.581	2.695277E-02	2.739614E-04	7.448236E-03	8.651995E-05
0.582	2.722841E-02	2.7563925-04	7.535436E-03	8.719979F-05
0.583	2.750573E-02	2.773175E-04	7.623318E-03	8.788158E-05
0.584	2.778472E-02	2.789950E-04	7.711883E-03	8.856530E-05
0.585	2.806540E-02	2.806749E-04 2.823539E-04	7.801134E-03 7.891072E-03	8.925093E-05
0.586 0.587	2.834775E-02 2.863179E-02	2.840331E-04	7.981700E-03	8.993845E-05 9.062784E-05
0.588	2.891750E-02	2.857123E-04	8.073019E-03	9.131909E-05
0.589	2.929489E-02	2.873916E-04	8.165031E-03	9.201217E-05
0.590	2.949396E-02	2.890709E-04	8.257738E-03	9.270707E-05
0.591	2.978471E-02	2,9075015-04	8.351142E-03	9.340377E-05
0.592	3.007714E-02	2.924291E-04	8.445244F-03	9.410225F-05
0.593	3.037125E-02	2.941079E-04	8.540047E-03	9.480248E-05
0.594	3.066703E-02	2.957865F-04	8.635551E-03	9.550447E-05
0.595	3.096450E-02	2.974647E-04	8.731759E-03	9.620817E-05
0.596	3.126364E-02	2.991426E-04	8.828673E-03	9.691358E-05
0.597	3.156446E-02	3.008200E-04	8.926294E-03	9.762068E-05
0.598	3.186696E-02	3.024970E-04	9.024623E-03	9.832945E-05

R. F. M. Gebel, Cumulative Blackbody Functions

λn	$n_{\mathbf{k}}^{\mathbf{k}}(\lambda_{\mathbf{h}})$	$r_{1}\frac{\tau}{\mu}(\lambda_{i_{1}})-r_{1}\frac{\tau}{\mu}(\lambda_{i_{1}-1})$	$\eta_{\mathcal{Q}}^{\dagger}(x_{n})$	$n_Q^{\dagger}(\lambda_n) - n_Q^{\dagger}(\lambda_{n-1})$
0.599	1.21/11/1-02	3.0417346-04	9.1216631-03	9.90 19861-05
100	1.2416981-02	1.0584921-04	9.2234156-03	9.975190E-05
2.601	3.2784501-02	1.0152441-04	9. 52 18 HCf - C3	1.004656E-04
0.692	1. 109370F-07	1.0919886-04	9.7250611-03	1.011808E-04
0.603	3.34045HE-02	1.10H/25E-04	9,5/59596-03	1.018976E-0.
0,494	1.3717126-02	1.125454E-04	9.6295156-03	1.026160E-94
0.505	3.401134F-02	1.1421745-04	9.7329111-03	1.013159E-04
7.676	1.4347236-02	1.1588855-04	9. H 1696HF-03	1.0405732-04
0.6)7	3.4664791-02	1.175586F-04	9.9417486-03	1.04780/E-04
1.609	3.499401F-02	1.1922778-04	1.0047256-02	1.0550 +6E-04
0.609	3.5304916-02	3.2089576-04	1.0153486-02	1.062335E-04
0.610	1.5627416-02	3.225626F-04	1.0260448-02	1.06 +5 78F-04
0.611	2.59517CE-02	1.2422B3E-04	1.0368136-02	1.(/.865E-04
0.612	3.627759E-02	3.258928E-04	1.0476548-02	1.084166E-04
0.613	3.5605158-02	3.275560E-04	1.058569F-02	1.091481E-04
0.614	3.4934375-02	3.2921 78F - 04	1.0695578-02	1.0988106-04
0.615	3.7265255-62	3.308782E-04	1.)80619E-02	1.1061528-04
0.616	3.759778E-02	3.3253726-04	1.091754E-02	1.113507E-04
0.617	3.793198F-02	3.341947E-04	1.102963E-02	1.120875E-04
0.6'8	3.826783E-02	3.358507E-04	1.114245F-02	1.128257E-04
0.619	3.960533E-02	3.375051E-04	1.1256028-02	1.135650E-04
0.620 0.621	3.9944498-02	3.391578E-04	1.137032E-02 1.148537F-02	1.143057E-04 1.150475E-04
0.622	3.9285308-02	3.408089F-04	1.160116E-02	1.157906E-04
0.623	3.962776E-02	3.424582E-04 3.441058E-04	1.171770E-02	1.165349E-04
0.624	4.031762E-02	3.457515E-04	1.183498E-02	1.172803E-04
0.625	4.066501E-02	3.473953E-04	1.195300E-02	1.180269E-04
0.626	4.101405E-02	3.4903725-04	1.2071786-02	1.187746E-04
0.627	4.136472F-02	3.506771E-04	1.219130E-02	1.195235E-04
2.628	4.171704E-02	3.523151E-04	1.231158E-02	1.202734E-04
0.629	4.207099E-02	3.539509E-04	1.243260E-02	1.210244E-04
0.630	4.242658E-02	3.555846E-04	1.255438E-02	1.2177658-04
0.531	4.279379F-02	3.572162E-04	1.267691E-02	1.225296E-04
0.632	314264E-02	3.588456E-04	1.280019E-02	1.232837E-04
0.633	4.350311E-02	3.604727E-04	1.292423E-02	1.240388E-04
0.634	4.386521E-02	3.620976E-04	1.304902E-02	1.247949E-04
0.635	4.422893E-02	3.637201E-04	1.317457F-02	1.255520E-04
0.636	4.459427E-02	3.653402E-C4	1.330088E-02	1.2631008-04
0.637	4.496123E-02	3.669579E-04	1.342795E-02	1.270689E-04
0.638	4.53298CE-02	3.685732E-04	1.355578E-02	1.278287E-04
0.639	4.569999E-02	3.701859E-04	1.368437E-02	1.285895E-04
0.640	4.607178E-02	3.717961E-04	1.381372E-02	1.293510E-04
0.641	4.644518E-02	3.734037E-04	1.394384E-02	1.301135E-04
0.642	4.582019E-02	3.750096E-04	1.407471E-02	1.308767E-04
0.643	4.719680E-C2	3.7661 39E-04	1.420635E-02	1.316408E-04
0.644	4.757501E-02	3.782105E-04	1.433876E-C2	1.324057E-04
0.645	4.795482E-02	3.798073E-04	1.447193E-02	1.331713E-04
0.646	4.833622E-02	3.814013E-04	1.460587E-02	1.3393775.04
0.647	4.871922E-02	3.829925E-04 3.845808E-04	1.474057E-02	1.347059E-04
0.648	4.910380E-02	2 • 04 20 UBE - U4	1.487605E-02	1.354727E-04

R.K.H. Gebel, Cumulative Blackbody functions

λ _n	$\eta_{\mathbf{n}}^{\dagger}(\lambda_{\mathbf{n}})$	$\eta_{\mathbf{R}}^{\dagger}(\lambda_{\mathbf{n}}) - \eta_{\mathbf{R}}^{\dagger}(\lambda_{\mathbf{n}-1})$	$n_{\mathbf{Q}}^{\dagger}(\lambda_{\mathbf{D}})$	$n_Q^{\dagger}(\lambda_n) - n_Q^{\dagger}(\lambda_{n-1})$
0.649	4.9489966-02	1.861662F-04	1.5012298-02	1.3624131-04
0.650	4.987771E-02	1.877486E-04	1.514910F-02	1.370105E-04
0.051	5.026704E-02	3.893281F-04	1.52#70#F-02	1.317804E-04
0.652	5.0657946-02	1.9090456-04	1.542563E-02	1.385510E-04
0.653	5.105042E-02	3.924778E-04	1.556495F-02	1.393222E-04
0.654	5.144447E-02	3.940481F-04	1.570505F-02	1.400939E-04
0.655	5.184009E-02	3.956152F-04	1.584591E-02	1.4086636-04
0.656	5.223726F-02	1.971791E-04	1.598755E-02	1.4163928-04
0.657	5.263600E-02	3.987398E-04	1.612796E-02	1.424127E-04
9.658	5.303630E-02	4.002972E-04	1.627315E-02	1.431868E-04
0.659	5.143815E-02	4.0185148-04	1.641711F-02	1.439613E-04
0.660	5.384155E-02	4.034022E-04	1.656185E-02	1.447364E-04
0.661	5.424650E-02	4.)49497E-04	1.670736E-02	1.4551196-04
0.662	5.465300E-02	4.064938E-04	1.685365E-02	1.462879E-04
0.663	5.506103E-02	4.080344E-04	1.700071F-02	1.470643E-04
0.664	5.547060E-02	4.095717E-04	1.714855E-C2	1.478412E-04
0.655	5.586171E-02	4.111054E-04	1.729717E-02	1.486184E-04
0.666	5.629435E-02	4.126355E-04	1.744657E-02	1.4939618-04
0.667	5.670851E-02	4.141622E-04	1.759674E-02	1.501741E-04
0.668	5.712419E-02	4.156852E-04	1.774769E-02	1.509525E-04
0.669	5.754140E-02	4.172046E-04	1.7899436-02	1.517312E-04
0.670	5.796012E-02	4.187203E-04	1.805194E-02	1.525103E-04
0.671	5.838035E-02	4.202324E-04	1.820523F-02	1.532896E-04
0.672	5.880209E-02	4.217407E-04	1.835930E-02	1.540693E-04
0.673	5.922534E-02	4.232453E-04	1.851414E-02	1.548492E-04
0.674	5.965008E-02	4.247461E-04	1.866977E-02	1.556294E-04
0.675	6.0076325-02	4.262431E-04	1.882618E-02	1.564097E-04
0.676	6.050406E-02	4.277362E-C4	1.878337E-02	1.571904E-04
0.677	6.093329E-02	4.292255E-04	1.914135E-02	1.579712E-04
0.678	6.136400E-02	4.307109E-04	1.930010E-02	1.587522E-04
0.679	6.179619E-02	4.321923E-04	1.945963E-02	1.595333E-04
0.680	6.222986E-02	4.336698E-04	1.961995E-02	1.603146E-04
0.681	6.266500E-02	4.351433E-04	1.978104E-02	1.610961E-04
0.682	6.310162E-02	4.366128E-04	1.994292E-02	1.618776E-04
0.683	6.353969E-02	4.380783E-04	2.0105585-02	1.626593E-04
0.684	6.397923E-02	4.395397E-04	2.026902E-02	1.634410E-04
0.685	6.442023E-02	4.409970E-04	2.043324E-02	1.642228E-04
0.686	6.486268F-02	4.424501E-04	2.059825E-02	1.650047E-04
0.687	6.530658E-02	4.438992E-04	2.076403E-02	1.657866E-04
0.698	6.575192E-02	4.453440E-04	2.093060E-02	1.665685E-04
0.689	6.619871E-02	4.467847E-04	2.109795E-02	1.673504E-04
0.690	6.664693E-02	4.482211E-04	2.126608E-02	1.681323E-04
0.691	6.779658E-02	4.496533E-04	2.14350CE-02	1.689141E-04
0.692	6.754766E-02	4.510812E-04	2.160469E-02	1.696959E-04
0.693	6.800017E-02	4.525048E-04	2.177517E-02	1.704777E-04
0.694	6.845409E-02	4.539241E-04	2.194643E-02	1.712593E-04
0.695	6.890943E-02	4.553390E-04	2.211847E-02	1.720409E-04
0.696	6.936618E-02	4.567496E-04	2.229129E-02	1.728223E-04
0.697	6.982434E-02	4.581558E-04	2.246490E-02	1.736036E-04
0.698	7.028390E-02	4.595576E-04	2.263928E-02	1.743848E-04

R. F.H. Gebel, Cumulative Blackbody functions

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n_Q^{\dagger}(\lambda_n) - n_Q^{\dagger}(\lambda_{n-1})
                       \eta_{\mathbf{R}}^{\dagger}(\lambda_{\mathbf{n}}) - \eta_{\mathbf{R}}^{\dagger}(\lambda_{\mathbf{n}-1})
         \eta_{K}(\lambda_{ij})
                                          n_0(\lambda_n)
0.699
         1.0144851-02
                         4.6095496-04
                                         2.281445F-02
                                                         1.75165EE-04
0.100
         1.1207201-02
                        4.6234786-04
                                         2.299040E-02
                                                         1.759467F-04
0.701
         1.161093F-02
                        4.6373628-04
                                        2.116/121-02
                                                         1.7672736-04
0.10)
         7.2115055-02
                        4.651201: -04
                                        2.314463E-02
                                                         1.7750776-04
0.7)1
         1.260255E-02
                        4.6649956-04
                                         2. 1522926-02
                                                         1.742880E-C4
0.704
         7.3070436-02
                        4.6787446-04
                                         2.3701496-02
                                                         1.7906796-00
0.705
         7. 15 196 7F - 02
                        4.6924465-04
                                        2.388183E-02
                                                         1.7984776-04
0.706
         1.401028E-C2
                        4.706103E-04
                                        2.4062466-02
                                                         1.806271F-04
        1.448225F-02
0.707
                        4.7147146-04
                                        2.424387E-02
                                                         1.814063F-04
0.738
        7.495558F-02
                        4.733279F-04
                                        2.442405t-02
                                                         1.821852E-04
0.709
        7.543026E-02
                        4.7467986-04
                                        2.460902E-02
                                                         1.829637E-04
0.710
        1.590629F-02
                        4.760269F-04
                                        2.479276E-02
                                                         1.83742GE-04
0.711
        7.538366F-02
                        4.773694F-04
                                        2.497728E-02
                                                         1.8451996-04
0.712
        7.5862378-02
                        4.787073E-04
                                        2.516258E-02
                                                         1.852974E-04
0.713
        1.134241F-02
                        4.800403E-04
                                        2.534865E-02
                                                         1.860746E-04
0.714
        7.182377E-02
                        4.813687F-04
                                        2.553550E-02
                                                        1.868514E-04
                        4.826923F-04
0.715
        7.830647E-02
                                        2.5723136-02
                                                        1.876278E-04
0.716
        7.879048E-02
                        4.840112E-04
                                        2.591153E-02
                                                        1.884037E-04
0.717
        1.92758CF-02
                        4.853252E-04
                                        2.610071E-02
                                                        1.891793E-04
0.718
        1.976244E-02
                        4.866345E-04
                                        2.629067E-02
                                                        1.899544E-04
                                        2.64814CF-02
0.719
        8.025036F-02
                        4.879390E-04
                                                        1.907290F-04
                        4.892386E-04
2.720
        8.073962E-02
                                        2.667290E-02
                                                        1.9150324-04
0.721
        9.123015F-02
                        4.905334E-04
                                        2.68,518F-02
                                                        1.922769E-04
        8.172197E-02
                        4.9182335-04
0.722
                                        2.705823E-02
                                                        1.930500E-04
0.723
        8.2215085-02
                        4.931083E-04
                                        2.125205E-02
                                                        1.938227E-04
0.724
        8.270947E-02
                                        2.744664E-02
                                                        1.945948E-04
                        4.943885E-04
                        4.956637E-04
0.725
        8.320513E-02
                                        2.764201E-02
                                                        1.953664E-04
0.726
        8.370207F-02
                        4.969340E-04
                                        2.783815E-02
                                                        1.961375E-04
0.727
        8.420027E-02
                        4.981994E-04
                                        2.803506E-02
                                                        1.969080E-04
0.728
        8.469973E-02
                        4.994599E-04
                                        2.823273E-02
                                                        1.9767796-04
0.729
        8.520044E-02
                        5.007153E-04
                                        2.843118E-02
                                                        1.984472E-04
0.730
        6.570241F-02
                        5.019658E-04
                                        2.863040E-02
                                                        1.992159E-04
0.731
        8.620562E-02
                                                        1,999839E-04
                        5.032114E-04
                                        2.883038E-02
0.732
        8.671007E-02
                        5.044519E-04
                                        2.903113E-02
                                                        2.007514E-04
0.733
                                                        2.015182E-04
        8.721576E-02
                        5.056874E-04
                                        2.923265E-02
0.734
        8.772268E-02
                        5.069179E-04
                                        2.943493F-02
                                                        2.022843E-04
0.735
                        5.081433E-04
                                        2.963798E-02
        8.923082E-02
                                                        2.030498E-04
0.736
        8.874018E-02
                        5.093637E-04
                                        2.984180E-02
                                                        2.038145E-04
0.737
                                        3.004638E-02
        8.925076E-02
                        5.105791E-04
                                                        2.045786E-04
0.738
        8.976255E-02
                        5.117894E-04
                                        3.025172E-02
                                                        2.053420E-04
0.739
        9.027555E-02
                        5.129946E-04
                                        3.045782E-02
                                                        2.061046E-04
0.740
        9.078974E-02
                        5.141947E-04
                                        3.066469E-02
                                                        2.068665E-04
0.741
        9.130513F-02
                        5.153897E-04
                                        3.087232E-02
                                                        2.076277E-04
0.742
        9.182171E-02
                        5.165796E-04
                                        3.108071E-02
                                                        2.083881E-04
0.743
        9.233947E-02
                                        3.128985E-02
                        5.177644E-04
                                                        2.091477E-04
0.744
        9.285842E-02
                        5.189441E-04
                                        3.149976E-02
                                                        2.099065E-04
0.145
        5.337854F-02
                        5.201186E-04
                                        3.171C42E-02
                                                        2.106646E-04
0.744
        9.389982E-02
                        5.212879E-04
                                        3.192185E-02
                                                        2.114218E-04
0.747
                                                        2.121782E-04
        9.442228E-02
                        5.224522E-04
                                        3.213402E-02
0.748
        9.494589E-02
                        5.236112E-04
                                        3.234696F-02
                                                        2.129338E-04
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R.F.H. Gebel, Cumulative Blackbody functions

λ _n	$n_{\mathbb{R}}^{\dagger}(\lambda_{n})$	$\eta_{\mathbf{R}}^{\dagger}(\lambda_{n}) \cdot \eta_{\mathbf{R}}^{\dagger}(\lambda_{n-1})$	$n_Q^{\dagger}(\lambda_n)$	$n_Q^\dagger(\lambda_n) - n_Q^\dagger(\lambda_{n-1})$
0.749	9.547065F-02	5.2476516-04	3.256065F-02	2.1368851-01
0.750	4.5996578-02	5.2591386-04	3.217509E-02	2.144424E-04
0.751	9.6523626-02	5.270573E-04	3.299029E-02	2.151954E-04
0.752	9.705182F-02	5.281956E-04	3.3206236-02	2.1594756-04
0.753	9.758115F-02	5.293284F-04	3.3422936-02	2.166988E-04
0.754	9.911161E-02	5.304567E-04	3.364038F-02	2.174491E-06
0.755	9.8643186-02	5.315794E-04	3.385858E-02	2.181985F-06
0.756	9.917588E-02	5.326968F-04	3.407753F-02	2.189470F-04
0.757	9.970969F-02	5.3,8091E-04	3.429722E-02	2.1969461-04
0.758	1.002446F-01	5.349161F-04	3.451766E-02	2.204412F-04
0.759	1.007806E-01	5.360179E-04	3.473985E-02	2.211868F-04
0.760	1.0131776-01	5.371144F-04	3.496078E-02	2.2193156-04
0.761	1.018559E-01	5.382057F-04	3.518346E-02	2.226752E-04
0.762	1.023952E-01	5.392917E-04	3.540687E-02	2.234180E-04
0.763	1.029356F-01	5.403725E-04	3.563103E-02	2.241597E-04
0.764	1.034771E-01	5.414480E-04	3.585593E-02	2.249004F-04
0.765	1.040196E-01	5.425182E-04	3.608157E-02	2.256401E-C4
0.766	1.045632E-01	5.435832E-04	3.630795F-02	2.2637878-04
0.767	1.051078E-01	5.446428E-04	3.653507F-02	2.271163E-04
0.768	1.056535E-01	5.4569728-04	3.676292E-02	2.278529E-04
0.769	1.062002F-01	5.467463E-04	3.699151E-02	2.285884E-04
0.770	1.067480F-01	5.477902E-C4	3.7?2083E-02	2.293228t-04
0.771	1.072969F-01	5.488287E-04	3.745089E-02	2.300562E-04
0.772	1.078467E-01	5.498619E-04	3.768168E-02	2.307884E-04
0.773	1.083976E-01	5.508899E-04	3.791320E-02	2.315196E-04
0.774	1.089495E-01	5.519125E-04	3.814545E-02	2.322496E-04
0.775	1.095025E-01	5.529298E-04	3.837842E-02	2.329785E-04
C.776	1.100564F-01	5.539419E-04	3.861213E-02	2.3370636-04
0.777	1.106113E-01	5.549486E-04	3.884656E-02	2.344329E-04
0.778	1.111673E-01	5.559500E-04	3.908172E-02	2.351584E-04
0.779	1.1172426-01	5.569461E-04	3.931761E-02	2.358828E-04
0.780	1.1?2822E-01	5.579369E-04	3.955421E-02	2.366059E-04
0.781	1.128411E-01	5.589224E-04	3.979154E-02	2.373279E-04
0.782	1.134010F-01	5.599025E-04	4.C02959F-02	2.380487E-04
0.783	1.139619E-01	5.608774E-04	4.026836E-02	2.387683E-04
0.784	1.145237E-01	5.618469E-04	4.050784E-02	2.394867E-04
0.795	1.150865E-01	5.628112E-04	4.074805E-02	2.402039E-04
0.786 0.787	1.156503E-01 1.162150E-01	5.637701E-04 5.647237E-04	4.098897E-02 4.123060E-02	2.409199E-04
0.788	1.167807E-01	5.656719E-04	4.147295E-02	2.416346E-04 2.423481E-04
0.789	1.173473E-01	5.666149F-04	4.171601E-02	2.430603E-04
0.790	1.179149E-01	5.675525E-04	4.195978E-02	2.437713E-04
0.791	1.184834E-01	5.684849E-04	4.220426E-02	2.444811E-04
0.792	1.190528E-01	5.694119E-04	4.244945E-02	2.451895E-04
0.793	1.196231E-01	5.703336E-04	4.269535E-02	2.458967E-04
0.794	1.201944E-01	5.712500E-04	4.294195E-02	2.466026E-04
0.795	1.207665E-01	5.721611E-04	4.318926E-02	2.473071E-04
0.796	1.213396E-01	5.730669E-04	4.343727E-02	2.480104E-04
0.797	1.219136E-01	5.739674E-04	4.368598E-02	2.487124E-04
0.798	1.224884E-01	5.748625E-04	4.393539E-02	2.494130F-04
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 R, F, \mathcal{H}_{+} Gebel, Cumulative Blackbudy functions

$\lambda_{\mathbf{n}}$	$n_{\mathbf{R}}^{\frac{1}{2}}(\lambda_{\mathbf{n}})$	$\eta_{R}^{\dagger}(\lambda_{n}) - \eta_{R}^{\dagger}(\lambda_{n-1})$	$\alpha_{\mathcal{Q}}(\mathbf{x}_n)$	$\eta_{\bar{Q}}^{\dagger}(\lambda_{n}) \cdot \eta_{\bar{Q}}^{\dagger}(\lambda_{n-1})$
r.199	1.2306426-01	5. 1515246 -04	4.4185516-02	2.5011236-04
0.800	1.2364086-01	5.766310F-04	4.443632F-02	2.50H103E-04
0.801	1.2421836-01	5.175162E-04	4.468 182E-C2	2.5150698-04
0.402	1.2479675-01	5.783702F-04	4.494CO3F-02	2.572022F-04
0.803	1.2537606-01	5.792549E-04	4.519292E-02	2.528961E-04
0.804	1.2595616-01	5.801223F-04	4.5446511-02	2.535887F-04
0.805	1.265371F-01	5.809804E-04	4.5700798-02	2.542798E-04
0.806	1.271189E-C1	5.818332t-04	4.5955761-02	2.549696F-04
0.807	1.277016E-C1	5.8268076-04	4.621142E-02	2.5565806-04
О. НОН	1.282851E-C1	5.835230E-04	4.646776E-C2	2.563450E-04
0.809	1.2886956-01	5.843600E - 04	4.672479E-07	2.570306E-04
0.810	1.2945476-01	5.851917E-04	4.698251E-02	2.577148E-04
0.811	1.300477F-01	5.860182E-04	4.7240916-02	2.583976E-04
0.812	1.306215F-01	5.868394E-04	4.7499986-02	2.590796E-04
0.813	1.3121521-01	5.876553E - 04	4.7759748-02	2.597589E-04
0.814	1.3180365-01	5.8846608-04	4.802018F-02	2.604374E-04
0.816	1.323929E-01	5.892714E-04 5.900716E-04	4.828130F-C2 4.854309E-02	2.611144E-04 2.617900E-04
0.817	1.329830F-01 1.335738E-01	5.708666E-04	4.880555F-02	2.624642E-04
0.818	1.341655E-C1	5.916563F-04	4.9068695-02	2.631368E-04
0.819	1.347579E-01	5.924408E-04	4.933249E-02	2.638080E-04
0.820	1.353512F-01	5.932200E-04	4.959697E-02	2.644778E-04
0.821	1.359452E-01	5.939941E-04	4.986212E-02	2.651460E-04
0.822	1.365399E-01	5.947629E-04	5.0127936-02	2.658128E-04
0.823	1.371354E-01	5.955255E-04	5.039441F-02	2.664780E-04
0.824	1.377317F-C1	5.962850E-04	5.066155E-02	2.671418E-04
0.825	1.383288F-C1	5.970382E-04	5.092935F-02	2.678041E-04
0.826	1.389266E-01	5.977462F-U4	5.119782E-02	2.684648E-04
0.827	1.395251E-01	5.985291E-04	5.146694E-02	2.691240F-04
0.828	1.401244E-01	5.992667E-04	5.173673E-02	2.697817E-04
0.829	1.407244E-01	5.999992E-04	5.200716E-02	2.704379E-04
0.830	1.413251F-01	6.007266F-04	5.227826F-02	2.710926E-04
0.831	1.4192655-01	6.014487E-04	5.255000F-02	2.717457E-04
0.832	1.425287E-01	6.021658E-04 6.028776E-04	5.28224CF-02 5.3C9545E-02	2.723972E-04 2.730472E-04
0.834	1.431316E-01 1.437352E-01	6.035844E-04	5.336914F-02	2.736957E-04
0.835	1.443394E-01	6.042860E-04	5.364348E-02	2.743426E-04
0.836	1.449444E-C1	6.049824E-04	5.3918.7E-02	2.749879E-04
0.837	1.455501E-01	6.056738E-04	5.41941 E-02	2.756317E-04
0.838	1.461565E-01	6.06360ie-04	5.447038E-02	2.762738E-04
0.839	1.467635E-01	6.070412E-04	5.474729E-02	2.769145E-04
0.840	1.473712F-01	6.077173E-04	5.502485E-02	2.775535E-04
0.341	1.479796E-01	6.0838825-04	5.530304E-02	2.781909E-04
0.842	1.485887F-01	6.090541E-04	5.558186E-02	2.788267E-04
0.843	1.491984E-01	6.097149E-04	5.586132E-02	2.794609E-04
0.844	1.498087F-01	6.103/0/5-04	5.6141426-02	2.800936E-04
0.845	1.504198E-01	6.110213E-04	5.642214F-02	2.807246E-04
0.846	1.510314E-01	6.115670E-04	5.670350E-02	2.813540E-04
0.847	1.516437E-01	6.123076E-04	5.698548E-02	2.819817E-04
0.848	1.522567E-01	6.129432E-04	5.726809E-02	2.826079E-04

R.F.H. Gebel, Cumulative Blackbody Functions

λ _n	$n_{\mathbb{R}}(\lambda_n)$	$\eta_{\mathbf{R}}^{\dagger}(\lambda_{\mathbf{n}}) \cdot \eta_{\mathbf{R}}^{\dagger}(\lambda_{\mathbf{n}-1})$	$n_{Q}^{\dagger}(\lambda_{n})$	$n_Q^\dagger(\lambda_n) - n_Q^\dagger(\lambda_{n-1})$
0.449	1.528703E-01	6.135/37F-04	5. 7551326-02	2.832324E-04
0.850	1.534845E-01	6.141993E-04	5. 7835171-02	2.8385538-04
0.051	1.540993F-01	6.1481986-04	5.811965E-07	2.844766F-04
0.852	1.5471476-01	6.154353E-04	5.840475E-02	2.850962E-04
0.853	1.5533086-01	6.160459E-04	5.8690468-02	457142E -04
0.854	1.559474F-01	A. 166514F-04	5.8976798-02	2.8633051-04
0.855	1.5656478-01	6.172520E-04	5.926374E-02	2.869452E-04
0.856	1.571825E-01	6.178477E-04	5.9551298-02	2.8755HZF-04
0.857	1.578009F-01	6.184383E-04	5.983946E-02	2.881696F-04
0.858	1.584200E-01	6.1902416-04	6.012824E-02	2.881793F-04
0.859	1.590396F-01	6.196049E-04	6.041763F-02	2.893873F-04
0.869	1.596598F-01	6.201808E-04	6.070762F-02	2.899931E-04
0.861	1.5028056-01	6.2075176-04	6.099822E-02	2.905984E-04
0.862	1.609018E-01	6.213178E-04	6.128942E-02	2.912014E-04
0.863	1.615237E-01	6.218790E-04	6.158123F-02	2.918027E-04
0.864	1.621461E-01	6.224352E-04	6.187363E-02	2.924024E-04
0.865	1.6276918-01	6.229A67E-04	6.216663E-02	2.930003E-04
0.866	1.633927E-01	6.235332E-04	6.246023E-02	2.935966E-04
0.867	1.640167E-01	6.240749E-04	6.275442E-02	2.941912E-04
0.868	1.646413E-01	6.246117E-04	6.304920E-02	2.947841E-04
0.069	1.652665E-01	6.251437E-04	6.334458E-02	2.953752E-04
0.870	1.658922E-01	6.256739E-04	6.364054E-02	2.959647E-04
0.871	1.665184E-01	6.261933E-04	6.393709E-02	2.965525E-04
0.872	1.671451E-01	6.267108E-04	6.423423E-02	2.971385E-04
0.873	1.677723E-01	6.272236E-04	6.453196E-02	2.977229E-04
0.874	1.684000E-01	6.277316E-04	6.483026E-02	2.983055E-04
0.875	1.690283E-01	6.282348E-04	6.512915E-02	2.988864E-04
0.876	1.696570E-01 1.702862E-01	6.287332E-04	6.542861E-02 6.572866E-02	2.994656E-04
0.878	1.702662E-01	6.292269E-04 6.297159E-04	6.602927E-02	3.000431E-04 3.006188E-04
0.879	1.715461E-01	6.302701E-04	6.633047E-02	3.011928E-04
0.880	1.721768E-01	6.306796E-04	6.663223E-02	3.017651E-04
0.881	1.728080E-01	6.311544E-04	6.693457E-02	3.023356E-04
0.882	1.734396E-01	6.316245E-04	6.723747E-02	3.029045E-04
0.883	1.740717E-01	6.320899E-04	6.754094E-02	3.034715E-04
0.884	1.747042F-01	6.325507E-04	6.784498E-02	3.040369E-04
0.885	1.753372E-01	6.330068E-04	6.814958E-02	3.046005E-04
0.886	1.759707E-01	6.334582E-04	6.845474E-02	3.051623E-04
0.887	1.766046E-01	6.339050E-04	6.876047E-02	3.057224E-04
0.888	1.7723896-01	6.343471E-04	6.906675E-02	3.062807E-04
C.889	1.778737E-01	6.347846E-04	6.937358E-02	3.068373E-04
0.890	1.785090E-01	6.352176E-04	6.968098E-02	3.073922E-04
0.891	1.791446E-01	6.356459E-04	6.998892E-02	3.079453E-04
0.892 0.893	1.797807E-01	6.360697E-04	7-029742E-02	3.084966E-04
	1.804172F-01	6.364888E-04	7.060646E-02	3.090462E-04
0.894 0.895	1.810541E-01	6.369034E-04	7.091606E-02	3.095940E-04
0.895	1.816914E-01 1.823291E-01	6.373135E-04 6.377190E-04	7.122620E-02 7.153688E-02	3.101400E-04 3.106843E-04
0.897	1.829672E-01	6.381200E-04	7.184811E-02	3.112268E-04
0.898	1.836057E-01	6.385165E-04	7.215988E-02	3.117676E-04
0.899	1.842446E-01	6.389085E-04	7.247218E-02	3.123066E-04
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R.K.H. Geoel, Cumulative Blackbody functions

$\lambda_{\mathbf{n}}$	$n_R^!(\lambda_n)$	$\overline{n}_{\mathbf{p}}^{\dagger}(\lambda_{\mathbf{p}}) - n_{\mathbf{k}}^{\dagger}(\gamma_{i,i-1})$	$n_Q^t(\lambda_n)$	$\eta_Q^{\dagger}(\lambda_n)\!-\!\eta_Q^{\dagger}(\lambda_{n-1})$
0.900	1.849801	5 192960E-04	7.278503E-02	3.128438F-04
0.901	1.8552366-01	6.396790F-04	7.3098418-02	3.133792E-05
0.902	1.861637E-01	6.400576F-04	7.341232E-02	3.139179E-04
0.903	1.8650418-01	6.404317E-04	7.312676E-02	3.14444BE-04
0.904	1.8/44491-01	6.408713F-04	7.404174F-02	3.1497495-04
0.905	1.9808616.01	6.411665F-04	7.435724E-02	3.155032E-04
0.906	1.887276E-01	6.415274E-04	7.467327E-02	3.160298F-04
0.907	1.8936956-01	6.4189386-04	7.4989835-02	3.165545E-04
0.908	1.900117F-01	6.4223586-04	7.530690E-C2	3.170775E-04
0.909	1.906543E-01	6.425834E-04	7.567450E-02	3.175988E-04
C.910	1.912972E-01	6.429267F-04	7.594262F-02	3. 131182E-04
0.911	1.319405E-01	6.432656F-04	7.626126F-02	3.186358E-04
0.912	1.925841E-01	6.436001E-04	7.658041E-02	3.191517E-04
0.913	1.932280E-01	6.439304E-04	7.690008E-02	3.19665EE-04
0.914	1.938723E-01	6.442563E-04	7.122025E-02	3.201781F-04
0.915	1.945169E-01	6.445179E-04	7.754094E-02	3.206886E-04
0.916	1.951618E-01	6.448952E-04	7.786214E-02	3.211973E-04
0.917	1.958070F-01	6.452083E-04	7.818384E-02	3.21704?E-04
0.918	1.964525E-01	6.455170E-04	7.850605E-02	3.222093E-04
0.919	1.970983E-01	6.458215E-04	7.882876E-02	3.227127F · 04
0.920	1.977444E-01	6.461218E-04	7.915198E-02	3.232142E-04
0.921	1.983908E-01	6.464178E-04	7.947569E-02	3.237140E-09
0.922	1.990375E-01	6.467097E-04	7.979991F-02	3.247120E-04
0.923	1.996845E-01	6.469973E-04	8.012461E-02	3.247081E-04
0.924	2.003318E-01	6.472807E-04	8.044981E-02	3.252025E-04
0.925	2.309794E-01	6.475599E-04	8.077551E-02	3.256951E-04
0.926	2.016272E-01	6.478350E-04	8.110170F-02	3.261859E-04
0.927	2.022753E-01	6.481059E-04	8.142837E-02	3.266749E-04
0.928	2.0292375-01	6.483727E-04	8.175553E-02	3.271621E-04
0.929	2.035723F-01	6.486354E-04	8.208318E-02	3.276475E-04
0.930	2.042212E-01 2.048704E-01	6.488939E-04	8.241131E-02	3.281311E-04
0.931	2.055198E-01	6.491483E-04	8.273993E-02 8.306902F-02	3.286129E-04 3.290930E-04
0.932	2.061694E-01	6.493987E-04 6.496449E-04	8.339859E-02	3.295712E-04
0.934	2.068193E-01	6.498872E-04	8. 372864E-02	3.300476E-04
0.935	2.074694E-01	6.501253E-04	8.405916E-02	3.305223E-04
0.936	2.081198E-01	6.503594E-04	8.439015E-02	3.309951E-04
0.937	2.087704E-01	6.505895E-04	8.472162E-02	3.314662E-04
0.938	2.2942128-01	6.508156E-04	8.505356E-02	3.319354E-04
0.939	2.100722E-01	6.510377E-04	8.538596E-02	3.324029E-04
0.940	2.107235F-01	6.512558E-04	8.571883E-02	3.328685E-04
0.941	2.113750E-01	6.514699E-04	8.605216E-02	3.333324E-04
0.0 2	2.120266E-01	6.516801E-04	8.638595E-02	3.3379458-04
0., +3	2.126785E-01	6.518863E-04	8.672021E-02	3.342547E-04
0.944	2.133306E-01	6.520886E-04	8.705492E-02	3.347132E-04
0.945	2.139829E-01	6.522870E-04	8.739C09E-C2	3.351699E-04
0.946	2.146354E-01	6.524814E-04	8.772572E-02	3.356248E-04
0.947	2.152881E-01	6.526720E-04	8.806180E-02	3.360779E-04
0.948	2.159409E-01	6.528587E-04	8.839832E-02	3.365292F-04
0.949	2.165940E-01	6.530415E-04	8.87353CE-02	3.369787E-04

R.K.H. Gebel, Cumulative Blackbody Functions

$\lambda_{\mathbf{n}}$	$n_{\mathbf{R}}^{\dagger}(\lambda_{\mathbf{n}})$	$\eta_R^{\dagger}(\lambda_n) - \eta_R^{\dagger}(\lambda_{n-1})$	$\eta_Q^{\dagger}(\lambda_n)$	$\eta_Q^{\dagger}(\lambda_n) - \eta_Q^{\dagger}(\lambda_{n-1})$
0.950	2.172472F-01	6.532205E-04	8.907273F-02	3.374265E-04
0.951	2.179076F-01		8.941050E-02	3.378724E-04
0.952	2.185541E-01	6.535669E-04	8.974892E-02	3.383165F-04
0.953	2.192079E-01 2.198618E-01	6.537374E-04 6.538981E-04	9.008768E-02 9.042688E-02	3.387589E-04 3.391994E-04
0.955	2.205158F-01	6.540530E-04	9.076651E-02	3.396382E-04
0.956	2.21170CF-01	6.542142E-04	9.110659E-02	3.400752E-04
0.957	2.218244F-01	6.543665E-04	9.144710E-02	3.405104E-04
0.958	2.224789E-01	6.545151E-04	9.178804E-02	3.409438F-04
0.959	2.231336F-01	6.546600E-04	9.212942E-02	3.413754E-04
0.960	2.237884F-01	6.548012F-04	9.247122E-02	3.418053E-04
0.961	2.244433F-01	6.549386F-04	9.281346E-02	3.422333E-04
0.962	2.2509848-01	6.550724E-04	9.315612E-02	3.426596E-04
0.963	2.257536E-01	6.552025E-04	9.34992CE-02	3.430841E-04
0.964 0.965	2.264089E-01	6.553289E-04	9.384271E-02	3.435068F=04
0.966	2.270644E-01 2.277200F-01	6.554516F-04 6.555708E-04	9.418664F-02 9.453098E-02	3.439278E-04 3.443469E-04
0.967	2.283756F-01	6.556862E-04	9.487575E-02	3.447643E-04
0.958	2.290314F-01	6.557981E-04	9.522093E-02	3.451799E-04
0.969	2.296873E-01	6.559264E-04	9.556652E-02	3.455937E-04
0.970	2.303434F-01	6.560111E-04	9.591253E-02	3.460057E-04
0.971	2.309995E-01	6.561122E-04	9.625894F-02	3.464160E-04
0.972	2.316557F-01	6.562097F-04	9.660577E-02	3.468245E-04
0.973	2.323120F-01	6.563037E-04	9.69530CF-02	3.4723136-04
0.974	2.329684F-C1	6.563942E-04	9.730064F-02	3.476362F-04
C.975	2.336249E-01	6.564811E-04	9.764868E-02	3.480394E-04
C.976	2.342814E-01	6.565645E-04	9.799712E-02	3.484408E-04
0.917	2.349381F-01	6.566445E-04	9.834596F-02	3.488405F-04
0.978 0.979	2.355948E-01 2.362516E-01	6.567209E-04 6.567939E-04	9.869519E-02 9.904483E-02	3.492384E-04 3.496345E-04
0.990	2.3690845-01	6.568634E-04	9.939486E-02	3.500289E04
C.981	2.375654E-01	6.569295E-04	9.974528E-02	3.504215E-04
0.982	2.382224E-01	6.569922E-04	1.00961F-01	3.508123F-04
C.983	2.388774F-01	6.570514E-04	1.004473E-01	3.512014E-04
0.984	2.395365F-01	6.571072E-04	1.007989E-01	3.515887F-04
0.985	2.401937E-01	6.571597E-04	1.011509E-01	3.519743E-04
0.936	2.40H509E-01	6.572087E-04	1.015032F-01	3.523581E-04
0.987	2.415081F-01	6.572545E-04	1.0185605-01	3.527402E-04
0.948	2.421654F-01	6.572 468E - 04	1.022091E-01	3.531205E-04
0.989	2.42H228E-01	6.573358E-04	1.025626E-01	3.534991E-04
0.990 C.991	2.434801E-01 2.441376F-01	6.573715E-04 6.574039E-04	1.029164E-01 1.032707E-01	3.538759E-04 3.542510E-04
0.992	2.44795CE-01	6.574330E-04	1.036253E-01	3.546243E-04
0.973	2.454524F-01	6.5745888-04	1.039803E-01	3.549959E-04
0.994	2.461099F-01	6.574813E-04	1.043357E-01	3.553658E-04
0.995	2.467674E-01	6.575006E-04	1.046914E-01	3.557339E-04
0.996	2.474249E-01	6.575166E-04	1.050475E-01	3.561003E-04
0.997	2.440825E-01	6.5752945-04	1.054040E-01	3.564649E-04
0.998	2.49740CE-01	6.575390E-04	1.057608E-01	3.568278F-04
0.949	2.493976E-01	6.575453E-04	1.061180E-01	3.571890E-04

R.K.H. Gebel, Cumulative Blackbody Functions

	R.R.M. Geber, Cumurative Brackbody Functions			
λ_n	$\eta_R^{\dagger}(\lambda_n)$	$\eta_{R}^{\dagger}(\lambda_{n})\!-\!\eta_{R}^{\dagger}(\lambda_{n-1})$	$\eta_Q^{\dagger}(\lambda_n)$	$\eta_Q^\dagger(\lambda_n)\!-\!\eta_Q^\dagger(\lambda_{n-1})$
1.000	2.500551E-01	6.575485E-04	1.064756E-01	3.575485F-04
1.005	2.533428E-01	3.287679E-03	1. \82686E-01	1.793074E-03
1.010	2.566301E-01	3.287288E-03	1.100704F-01	1.801802E-03
1.015	2.599166E-01	3.286511E-03	1.118807E-01	1.810316E-03
1.020	2.632019E-01	3.285358E-03	1.136994E-01	1.818618E-03
1.025	2.664858E-01	3.283837E-03	1.155261E-01	1.826708E-03
1.030	2.697677E-01	3.281955E-03	1.173607E-01	1.834589E-03
1.035	2.730475E-01	3.279721E-03	1.192029E-01	1.842261E-03
1.040	2.763246E-01	3.277142E-03	1.210526E-01	1.849727E-03
1.045	2.795988E-01	3.274226F-03	1.229096E-01	1.856987E-03
1.050	2.828698E-01	3.270981E-03	1.247737E-01	1.864044E-03
1.055	2.861372E-01	3.267414E-03	1.266446E-01	1.870899E-03
1.060	894008E-01	3.263533E-03	1.285221E-01	1.877554E-03
1.065	2.926601E-01	3.259346E-03	1.304061E-01	1.884011E-03
1.070	2.959150E-01	3.254859E-03	1.322964E-01	1.890271E-03
1.075	2.991650E-01	3.250080E-03	1.341927E-01	1.896336E-03
1.080	3.024101F-01	3.245016E-03	1.360950E-01	1.902209E-03
1.085	3.056497E-01	3.239675E-03	1.380029E-01	1.907890E-03
1.090	3.089838F-01	3.234063E-03	1.399162E-01	1.913382E-03
1.095	3.121120E-01	3.228137E-03	1.418349E-01	1.918687E-03
1.100	3.1533405-01	3.222054E-03	1.437587E-01	1.923807E-03
1.105	3.185497E-01	3.215672E-03	1.456875E-01	1.928743E-03
1.110	3.217588E-01	3.209046E-03	1.476210E-01	1.933498E-03
1.115	3.249609E-01	3.202184E-03	1.495590E-01	1.938073E-03
1.120	3.28156CE-01 3.313438E-01	3.195091E-03 3.187774E-03	1.515015E-01 1.534482E-01	1.942472E-03 1.946695E-03
1.130	3.345240E-01	3.180239E-03	1.553989E-01	1.950744E-03
1.135	3.376965E-01	3.172494E-03	1.573536E-01	1.954623E-03
1.140	3.408611E-01	3.164543E-03	1.593119E-01	1.958332E-03
1.145	3.440175E-01	3.156392E-03	1.612738E-01	1.961874E-03
1.150	3.471655E-01	3.148249E-03	1.632390E-01	1.965251E-03
1.155	3.50305CE-01	3.139518E-03	1.652075E-01	1.968465E-03
1.160	3.534358E-01	3.130805E-03	1.671790E-01	1.971519E-03
1.165	3.565578E-01	3.121916E-03	1.691534E-01	1.974413E-03
1.170	3.596706E-01	3.112856E-03	1.711306E-01	1.977151E-03
1.175	3.627742F-01	3.1035318-03	1.731103E-01	1.979734E-03
1.180	3.6586858-01	3.094246E-03	1.750925E-01	1.982164E-03
1.185	3.689532E-01	3.084707E-03	1.770769E-01	1.984444E-03
1.190	3.720282E-01	3.075018E-03	1.790635E-01	1.986576E-03
1.195	3.750934E-01	3.065185E-03	1.810521E-01	1.988561E-03
1.200	3.781486E-01	3.055212E-03	1.830425E-01	1.990402E-03
1.205	3.811937E-01	3.045105E-03	1.850346E-01	1.992100E-03
1.210	3.842286E-01	3.034869E-03	1.870282E-01	1.993659E-03
1.215	3.872531E-01	3.024507E-03	1.890233E-01	1.995079E-03
1.220	3.902671E-C1	3.014024E-03	1.910197E-01	1.996363E-03
1.225	3.932705E-01	3.003426E-03	1.930172E-01	1.997513E-03
1.230	3.962633E-01	2.992717E-03	1.950157E-01	1.998531E-03
1.235	3.992452E-01	2.981900E-03	1.970151E-01	1.999419E-03
1.240	4.022161E-01 4.051761E-01	2.970980E-03 2.959962E-03	1.990153E-01 2.010161E-01	2.000178E-03 2.000812E-03
1.250	4.0517616-01 4.081249E-01	2.948849E-03	2.030174E-01	2.0008126-03
1.62.30	4 • 101247E-01	(• 7 T O 7 T 7 E T U 3	C. 030114E-01	C+0013C1C-03

R.K.H. Gebel, Cumulative Blackbody Functions

	N.N.II. GCD	er, cumuracive bi	denbody runetrons	
$\lambda_{\mathbf{n}}$	$\eta_R^{\dagger}(\lambda_n)$	$\eta_R^{\dagger}(\lambda_n) - \eta_R^{\dagger}(\lambda_{n-1})$	$\eta_Q^{\dagger}(\lambda_n)$	$\eta_Q^{\dagger}(\lambda_n) - \eta_Q^{\dagger}(\lambda_{n-1})$
1.255	4.110626E-01	2.937645E-03	2.050191E-01	2.001708E-03
1.2/	4.139889E-01	2.926354E-03	2.070211E-01	2.001975E-03
1.265	4.169039E-01	2.914981E-03	2.090232E-01	2.002124E-03
1.270	4.198075F-01	2.903529E-03	2.110254E-01	2.002156E-03
1.275	4.226995E-01	2.892001E-03	2.130275E-01	2.002073E-03
1.280	4.255799E-01	2.880401E-03	2.150293E-01	2.001878E-03
1.295	4.284486E-01	2.868734E-03	2.1703C9E-01	2.001573E-03
1.290	4.313056E-01	2.857001E-03	2.190321E-01	2.001158E-03
1.295	4.341508E-01	2.845206E-03	2.210327E-01	2.000636E-03
1.300	4.369842E-01	2.833354E-03	2.230327E-01	2.000009E-03
1.305	4.398056E-01	2.821447E-03	2.250320E-01	1.999279E-03
1.310	4.426151E-01	2.809487E-03	2.270305E-01	1.998446E-03
1.315	4.454126E-01	2.797479E-03	2.290280E-01	1.997514E-03
1.320	4.481980E-C1	2.785425E-03	2.310244E-01	1.996484E-03
1.325	4.509713E-01	2.773329E-03	2.330198E-01	1.995358E-03
1.330	4.537325E-01	2.761192E-03	2.350139E-01	1.994137E-03
1.335	4.564815E-01	2.749019E-03	2.370068E-01	1.992823E-03
1.340	4.592183E-01	2.736811E-03	2.389982E-01	1.991417E-03
1.345	4.619429E-01	2.724571E-03	2.409881E-01	1.989922E-03
1.350	4.646552E-01	2.712302E-03	2.429764E-01	1.988340E-03
1.355	4.673552E-01	2.700007E-03	2.449631E-01	1.986670E-03
1.360	4.700429E-01	2.687687E-03	2.469480E-01	1.984917E-03
1.365	4.727183E-01	2.675346E-03	2.489311E-01	1.983080E-03
1.370	4.753812E-01	2.662986E-03	2.509123E-01	1.981161E-03
1.375	4.780318E-01	2.650608E-03	2.528914E-01	1.979163E-03
1.380	4.806701E-01	2.638216E-03	2.548685E-01	1.977087E-03
1.385	4.832959E-01	2.625811E-03	2.568435E-01	1.974933E-03
1.390	4.859093E-01	2.613396E-03	2.588162E-01	1.972704E-03
1.395	4.885102F-01	2.600973E-03	2.607866E-01	1.970401E-03
1.400	4.910988E-01	2.588543E-03	2.627546E-01	1.968026E-03
1.405	4.936749E-01	2.576109E-03	2.647202E-01	1.965580F-03
1.410	4.962386E-01	2.563673E-03	2.666832E-01	1.963065E-03
1.415	4.987898E-01	2.551236E-03	2.686437E-01	1.960482E-03
1.420	5.013286E-01	2.538800E-03	2.706015E-01	1.957831E-03
	5.038550E-01 5.063689E-01	2.526369E-03	2.725567E-01	1.955116E-03
1.430	5.088704E-01	2.513940E-03 2.501519E-03	2.745090E-01	1.952337E-03
1.440	5.113595E-01	2.489106E-03	2.764585E-01 2.784051E-01	1.949495E-03
1.445	5.138362E-01	2.476702E-03	2.803487E-01	1.946592E-03 1.943629E-03
1.450	5.163005E-01	2.464310E-03	2.822893E-01	1.940607E-03
1.455	5.187525E-01	2.451931E-03	2.842268E-01	1.937528E-03
1.460	5.211920E-01	2.439566E-03	2.861612E-01	1.934393E-03
1.465	5.236193E-01	2.427216E-03	2.880924E-01	1.931203E-03
1.470	5.260341E-01	2.414884E-03	2.900204E-01	1.927960E-03
1.475	5.284367E-01	2.402569E-03	2.919451E-01	1.924664E-03
1.480	5.308270E-01	2.390275E-03	2.938664E-01	1.921317E-03
1.485	5.332050E-01	2.378001E-03	2.957843F-01	1.917920E-03
1.490	5.355707E-01	2.365750E-03	2.976988E-01	1.914474E-03
1.495	5.379243E-01	2.353522E-03	2.996098E-01	1.910981E-03
1.500	5.402656E-01	2.341318E-03	3.015172E-01	1.907441E-03

R.K.H. Gebel, Cumulative Blackbody Functions

	K.K.H. De	ber, cumuracive b	Tackbody Function	15
$\lambda_{\mathbf{n}}$	$n_{R}^{\dagger}(\lambda_{n})$	$\eta_R^{\dagger}(\lambda_n) - \eta_R^{\dagger}(\lambda_{n-1})$	$\eta_{Q}^{\dagger}(\lambda_{n})$	$\eta_Q^{\dagger}(\lambda_n) - \eta_Q^{\dagger}(\lambda_{n-1})$
1.505	5.425947E-01	2.329140E-03	3.034211E-01	1.903855E-03
1.510	5.449117E-01	2.316989E-03	3.053213E-01	1.900225E-03
1.515	5.472166F-01	2.304866E-03	3.072178F-C1	1.896552E-03
1.520	5.495093E-01	2.292771E-03	3.091107E-01	1.892836E-03
1.525	5.517900E-01	2.280706E-03	3.1C9998E-01	1.889079E-03
1.530	5.540587E-01	2.268671E-03	3.128850F-01	1.885283E-03
1.535	5.563154E-01	2.256668E-03	3.147665E-01	1.881447E-03
1.540	5.585601E-01	2 244698E-03	3.166441E-01	1.877573E-03
1.545	5.607929E-01 5.630137E-01	2.232761E-03 2.220858E-03	3.185177E-01 3.203874E-01	1.873661E-03 1.869714E-03
1.555	5.652227E-01	2.208930E-03	3.2!2532E-01	1.865731E-03
1.560	5.674199E-01	2.197158E-03	3.241149E-01	1.861714E-03
1.565	5.696052E-01	2.185362E-03	3.259725E-01	1.857664E-03
1.570	5.717788E-01	2.173603E-03	3.278261E-01	1.853581E-03
1.575	5.739407E-01	2.161883E-03	3.296756E-01	1.849467E-03
1.580	5.760909E-01	2.150201E-03	3.315209E-01	1.845322E-03
1.585	5.782295E-01	2.138558E-03	3.333621E-01	1.841147E-03
1.590	5.803564E-01	2.126955E-03	3.351990E-01	1.836943E-03
1.595	5.824718E-01	2.115392E-03	3.370317E-01	1.832711E-03
1.600	5.845757E-01	2.103871E-03	3.388602E-01	1.828452E-03
1.605	5.866681E-01	2.092391E-03	3.406843E-01	1.824167E-03
1.610	5.88749CE-01	2.080953E-03	3.425042E-01	1.819856E-03
1.615	5.908186E-01	2.069558E-03	3.443197E-01	1.815520E-03
1.620	5.928768E-01	2.058205E-03	3.461309E-01	1.811160E-03
1.625	5.949237E-01	2.046897E-03	3.479376E-01	1.806776E-03
1.630	5.969593E-01	2.035632E-03	3.497400E-01	1.802370E-03
1.635	5.989837E-01	2.024412E-03	3.515379E-01	1.797942E-03
1.640	6.029970E-01 6.029991E-01	2.013236E-03 2.002106E-03	3.533314E-01 3.551205E-01	1.793493E-03 1.789024E-03
1.650	6.049901E-01	1.991022E-03	3.569050E-01	1.784535E-03
1.655	6.069701E-01	1.979983E-03	3.58685CE-01	1.780027E-03
1.660	6.089391E-01	1.968991E-03	3.604605E-01	1.775501E-03
1.665	6.108971E-01	1.958045E-03	3.622315E-01	1.770957E-03
1.670	6.128443E-01	1.947146E-U3	3.639979E-01	1.766396E-03
1.675	6.147806E-01	1.936294E-03	3.657597E-01	1.761819E-03
1.680	6.167060E-01	1.925490E-03	3.675169E-01	1.757226E-03
1.685	6.186208E-01	1.914734E-03	3.692695E-01	1.752618E-03
1.690	6.205248F-01	1.904025E-03	3.710175E-01	1.747995E-03
1.695	6.224182E-01	1.893365E-03	3.7276C9E-01	1.743359E-03
1.700	6.243009E-01 6.261731E-01	1.882753E-03	3.744996F-01	1.738709E-03
1.710	6.280348E-01	1.872190E-03 1.861675E-03	3.762337E-01 3.779630E-01	1.734046E-03 1.729372E-03
1.715	6.298860E-01	1.851210E-03	3.796877E-01	1.724686E-03
1.720	6.317268F-01	1.840794E-03	3.814077E-01	1.719989E-03
1.725	6.335572E-C:	1.830426E-03	3.831230E-01	1.715281E-03
1.730	6.353773F-01	1.820109E-03	3.848335E-01	1.710563E-03
1.735	6.371872F-01	1.809841E-03	3.865394E-01	1.705836E-03
1.740	6.389868E-01	1.799622E-03	3.882405E-01	1.701100E-03
1.745	6.407762E-01	1.789453E-03	3.899368E-01	1.696356E-03
1.750	6.425556E-01	1.779335E-03	3.916284E-01	1.591603E-03
1.755	6.443248E-01	1.769266E-03	3.933153E-01	1.686844E-03

R.K.H. Gebel, Cumulative Blackbody Functions

	K.K.II. GCL	iei, cumurative b	lackbody lanction	3
$\lambda_{\mathbf{n}}$	$n_R^{\dagger}(\lambda_n)$	$\eta_R^{\dagger}(\lambda_n) - \eta_R^{\dagger}(\lambda_{n-1})$	$\eta_Q^{\dagger}(\lambda_n)$	$\eta_Q^{\dagger}(\lambda_n) - \eta_Q^{\dagger}(\lambda_{n-1})$
1.760	6.460841E-01	1.759247E-03	3.949974E-01	1.682077E-03
1.765	6.478334E-01	1.7492786-03	3.966747E-01	1.677304E-03
1.770	6.495727E-01	1.739359E-03	3.983472E-01	1.672524E-03
1.775	6.513022E-01	1.729490E-03	4.000149E-01	1.667739E-03
1.780	6.530219E-01	1.719672E-03	4.016779E-01	1.662949E-03
1.785	6.547318E-01	1.709904E-03	4.033360E-01	1.658154E-03
1.790	6.564320E-01	1.700186E-03	4.049894E-01	1.653355E-03
1.795	6.581225F-01	1.690518E-03	4.066379E-01	1.648552E-03
1.800	6.598034E-01	1.680900E-03	4.082817E-01	1.643746E-03
1.805	6.614747E-01	1.671333E-03	4.099206E-01	1.638936E-03
1.810	6.631365E-01	1.661816E-03	4.115547E-01	1.634124E-03
1.815	6.647889E-01	1.652349E-03	4.131841E-01	1.629309E-03
1.820	6.664318E-01	1.642932E-03	4.148085E-01	1.624493E-03
1.825	6.680654E-01	1.633565E-03	4.164282F-01	1.619675E-03
1.830	6.696896E-01	1.624249E-03	4.180431E-01	1.614855E-03
1.835	6.7130465-01	1.614982E-03	4.196531E-01	1.610035E-03
1.840	6.729104E-01	1.605765E-03	4.2125836-01	1.605215E-03
1.845	6.745070E-01	1.596598E-03	4-228587E-01	1.600394E-03
1.850	6.760945F-01	1.587481E-03	4.244543E-01	1.595574E-03
1.855	6.776729E-01	1.578414E-03	4.260450E-01	1.590754E-03
1.860	6.792423E-01	1.569396E-03	4.276310E-01	1.585934E-03
1.855	6.808027E-01	1.560428E-03	4.292121E-01	1.581116E-03
1.870	6.823542E-01	1.551510E-03	4.307884E-01	1.576300E-03
1.875	6.838969E-01	1.542640E-03	4.323599E-01	1.571485E-03
1.880	6.854307F-01	1.5338208-03	4.339266E-01	1.566673E-03
1.885	6.869557E-01	1.525050E-03	4.354884E-01	1.561862F-03
1.890	6.984720E-01	1.516328E-03	4.370455E-01	1.557055E-03
1.895	6.899797E-01	1.507655E-03	4.395977E-01	1.552250E-03
1.900	6.914787E-01	1.499031E-03	4.401452E-01	1.547448E-03
1.905	6.929692F-01	1.490455E-03	4.416878E-01	1.542650E-03
1.910	6.944511E-01	1.481928E-03	4.432257F-01	1.537856E-03
1.915	6.959246E-01	1.473450E-03	4.447587E-01	1.533065E-03
1.920	6.973896E-01	1.465020F-03	4.462870E-01	1.528279E-03
1.925	6.988462E-01	1.456638F-03	4.478105E-01	1.523497E-03
1.930	7.002945E-01	1.448304E-03	4.493292E-01	1.518720E-03
1.935	7.017345E-01	1.440017E-03	4.508432E-01	1.513948E-03
1.940	7.031663E-01	1.431779E-03	4.523524E-01	1.509181E-03
1.945	7.045899E-01	1.423588E-03	4.538568E-01	1.504420E-03
1.950	7.060054E-01	1.415444F-03	4.553565E-01	1.499664E-03
1.955	7.0741275-01	1.407347E-03	4.568514F-01	1.494914E-03
1.960	7.088120E-01	1.399248E-03	4.583415E-01	1.490170E-03
1.955	7.102033E-01	1.391295E-03	4.59827CE-01	1.485432E-03
1.970	7.115866E-01	1.383340E-03	4.613077E-01	1.480701E-03
1.975	7.129621E-01	1.375430E-03	4.627836E-01	1.475976E-03
1.980	7.143296E-01	1.367567E-03	4.642549E-01	1.471258E-03
1.985	7.156894E-01	1.359750E-03	4.657215E-01	1-466548E-03
1.990	7.170414E-01	1.3519798-03	4.671833E-01	1.461844E-03
1.995	7.183856E-01 7.197222E-01	1.344254E-03 1.336575E-03	4.686404E-01 4.700929E-01	1.457148E-03 1.452459E-03
2.000	7.197222E-01 7.223725E-01	2.650294E-03	4.729838E-01	2.890884E-03
2.010	1.2231236-01	7 • 07UZ94E=U3	4. 1290385-01	C.07U004E=U3

R.K.H. Gebel, Cumulative Blackbody Functions

$\lambda_{\mathbf{n}}$	$n_{R}^{\dagger}(\lambda_{n})$	$\eta_R^{\dagger}(\lambda_n) - \eta_R^{\dagger}(\lambda_{n-1})$	$\eta_Q^{\dagger}(\lambda_n)$	$\eta_Q^{\dagger}(\lambda_n) \! - \! \eta_Q^{\dagger}(\lambda_{n-1})$
2.020	7.249926E-01	2.620119E-03	4.75856CE-01	2.872224F-03
2.030	7.275829F-C1	2.590303E-03	4.787096F-01	2.853631F-03
2.040	7.301438E-01	2.560841E-03	4.815448E-01	2.835107E-03
2.050	7.326755E-01	2.531732E-03	4.843614E-01	2.816653E-03
2.060	7.3517855-01	2.502972E-03	4.871597E-01	2.798273E-03
2.070	7.376530E-01	2.474557E-03	4.899396E-01	2.779968E-03
2.080	7.400995E-01	2.446485E-03	4.927014E-01	2.761741E-03
2.090	7.425183E-01	2.418751E-03	4.954450E-01	2.743593E-03
2.100	7.449096E-01	2.391354E-03	4.981705E-01	2.725525E-03
2.110	7.472739F-C1	2.364289F-03	5.008780E-01	2.707541E-03
2.120	7.496114F-01	2.337552E-03	5.035677E-01	2.689640E-03
2.130	7.519226F-01	2.311142E-03	5.062395E-01	2.671825E-03
2.140	7.542076E-01	2.285054E-03	5.088936E-01	2.654097E-03
2.150	7.564669E-01	2.259285E-03	5.115301E-01	2.636457E-03
2.160	7.587008E-01	2.233832E-03	5.141490E-01	2.618907E-03
2.170	7.609094F-01 7.630933E-01	2.208690E-03 2.183858E-03	5.167504F-01	2.601448E-03 2.584081E-03
2.190	7.652526E-C1	2.159331E-03	5.193345E-01 5.219013E-01	2.566806E-03
2.200	7.673877E-01	2.135106E-03	5.244509E-01	2.549626E-03
2.210	7.694989E-01	2.111180E-03	5.269835E-01	2.532540E-03
2.220	7.715865E-01	2.087549E-03	5.294990E-01	2.515550E-03
2.230	7.736507E-01	2.064210E-03	5.319977E-01	2.498655E-03
2.240	7.7569185-C1	2.041159E-03	5.344795E-01	2.481858E-03
2.250	7.777102E-01	2.018394E-03	5.369447E-01	2.465159E-03
2.260	7.797062E-01	1.995911E-03	5.393933E-01	2.448557E-03
2.270	7.816799E-01	1.973707E-03	5.418253E-01	2.432055E-03
2.280	7.836316E-C1	1.9517775-03	5.442410E-01	2.415651E-03
2.290	7.855618E-C1	1.930120E-03	5.466403E-01	2.399347E-03
2.300	7.874705F-C1	1.908732E-03	5.490234E-01	2.383144E-03
2.310	7.893581E-C1	1.887639E-03	5.513905E-01	2.367040E-03
2.320	7.912248F-01	1.866749E-03	5.537415F-01	2.351C37E-03
2.330	7.930710E-01	1.846148F-03	5.56C767E-01	2.335135E-03
2.340	7.948968E-01	1.825803E-03	5.583960E-01	2.319335E-03
2.350	7.967025E-01	1.805711E-03	5.606996E-01	2.303635E-03
2.360	7.994984E-01	1.785869F-03	5.629877E-01	2.288037F-03
2.370	8.002546E-01	1.766273E-03	5.652602E-01	2.272540E-03
2.380	8.020016E-01	1.746921E-03	5.675174F-01	2.257145E-03
2.390	8.037294E-01	1.727810E-03	5.697592E-01	2.241852E-03
2.400	8.054383E-C1	1.708936E-03	5.719859E-01	2.226660E-03
2.410	8.071286E-01	1.690296E-03	5.741974E-01	2.211570E-03
2.420	8.088005F-C1	1.671989E-03	5.763940E-01	2.196581E-03
2.430	6.104542F-01	1.653710E-03	5.785757F-01	2.181694E-03
2.440	8.120900E-01	1.635757E-03	5.807426E-01	2.166908E-03
2.450	8.137080E-01	1.6180278-03	5.828948E-01	2.152223E-03
2.460	8.153085F-01 8.168917E-01	1.600517E-03 1.583224E-03	5.850325E-01 5.871556E-01	2.137639E-03
2.480	8.184579F-01	1.566145E-03	5.892644E-01	2.123156E-03 2.108774E-03
2.490	8.2000715-01	1.549279E-03	5.913589E-01	2.108/14E=03 2.094492E=03
2.500	8.215398E-C1	1.532621E-03	5.934392E-01	2.080310E-03
2.510	8.230559E-01	1.516170E-03	5.955054E-01	2.066228E-03
2.710	0 • 2 7 0 7 7 7 C UI	LADIOLIJE U)	20 777074C -UL	2. • 0.00220C-03

R.K.H. Gcbel, Cumulative Blackbody Functions

	K.K.II. GCD	er, cumurative br	ackbody runctions	•
$\lambda_{\mathbf{n}}$	$\eta_R^{\dagger}(\lambda_n)$	$n_{R}^{\dagger}(\lambda_{r_{i}}) - n_{F}(\lambda_{r_{i}-1})$	$\gamma_{\mathcal{Q}}(\lambda_{\mathbf{n}})$	$n_{\mathcal{Q}}^{\cdot}(\lambda_n) - n_{\mathcal{Q}}(\lambda_{n-1})$
2.520	8.245559E-01	1.499922E-03	5.9755775-01	2.052246E-03
2.530	8.260397E-01	1.483875E-03	5.995961E-01	2.038363E-03
.2.540	8.275078E-01	1.468027E-03	6.016206E-01	2.024579E-03
2.550	8.289601F-01	1.452374E-03	6.036315F-01	2.010893E-03
2.560	8.303970E-01	1.436915E-03	6.056288E-01	1.997306E-03
2.570	8.318187F-01	1.421646F-03	6.076126E-01	1.983817E-03
2.580	8.332253F-01	1.406565E-03	6.0958315-01	1.970425E-03
2.590	8.346169E-01	1.391670E-03	6.115402E-01	1.95/131E-03
2.600	8.359939E-01	1.376959E-03	6.134841E-01	1.943933E-03
2.610	8.373563E-01	1.362428E-03	6.154150E-01	1.930831E-03
2.620	8.387044E-01	1.348076E-03	6.1733265-01	1.917825E-03
2.630	8.400383E-01	1.333900E-03	6.192377E-01	1.904915E-03
2.640	8.413582E-01	1.319898E-03	6.211298E-01	1.892099E-03
2.650	8.426643E-01	1.306068E-03	6.230092E-01	1.879379E-03
2.660	8.439567E-01	1.2924C7E-03	6.248759E-01	1.866752E-03
2.670	8.452356E-01	1.278912E-03	6.267302E-01	1.854218E-03
2.680	8.465012E-01	1.265583E-03	6.285719E-01	1.841778E-03
2.690	8.477536F-01	1.252416E-03	6.304014E-01	1.829431E-03
2.700	8.489930E-01	1.239410E-03	6.322185E-01	1.817175E-03
2.710	8.502196E-01	1.226562E-03	6.340236E-01	1.805011E-03
2.720	8.514334E-01	1.213871E-03	6.358165E-01	1.792938F-03
2.730	8.526348E-01	1.201334E-03	6.375974E-01	1.780956E-03
2.740	8.538237E-01	1.188949E-03	6.393665E-01	1.769063E-03
2.750	8.550004E-01	1.176714E-03	6.411238E-01	1.757260E-03
2.760	8.561651F-01	1.164627E-03	6.428693E-01	1.745546E-03
2.770	8.573177E-01	1.152686E-03	6.446032E-01	1.733921E-03
2.780	8.584586F-01	1.140890E-03	6.463256E-01	1.722383E-03
2.790	8.595879E-01	1.129236E-03	6.480366E-01	1.710933E-03
2.800	8.607056E-01	1.117722E-03	6.497361E-01	1.699569E-03
2.810	8.618119E-01	1.106348E-03	6.514244E-01	1.688292E-03
2.820	8.629070E-01	1.095109E-03	6.531015E-01	1.677100E-03
2.830	8.639910E-01	1.084006E-03	6.547675E-01	1.665993E-03
2.840	8.650641E-01	1.073036E-03	6.554225E-01	1.654971E-03
2.850	8.661263E-01	1.062197E-03	6.580665E-01	1.644033F-03
2.860	E.671778E-01	1.051488E-03	6.596997E-01	1.633179E-03
2.870	8.682187E-01	1.040907E-03	6.613221E-01	1,622407E-03
2.880	8.692491E-01	1.030452E-03	6.629338E-01	1.611717E03
2.890	8.702693F-01	1.020122E-03	6.645349E-01	1.601109E-03
2.900	8.712792F-01	1.009915E-03	6.661255E-01	1.590583E-03
2.910	8.722790E-01	9.998284E-04	6.677056E-01	1.580137E-03
2.920	8.732689F-01	9.898619E-04	6.692754E-01	1.569771E-03
2.930	8.742489E~01	9.800135E-04	6.708349E-01	1.559484E-03
2.940	8.752192E-01	9.702816E-04	6.723842E-01	1.549277E-03
2.950	8.761798E-01	9.606647E-04	6.739233E-01	1.539148E-03
2.960	8.771310E-01	9.511613E-04	6.754524E-01	1.529096E-03
2.970	8.780728E-01	9.417698E-04	6.769715E-01	1.519122E-03
2.980	8.790052E-01	9.324888E-04	6.784808E-01	1.509224E-03
2.990	8.799286E-01	9.233168E-04	6.799802E-01	1.499403E-03
3.000	8.808428E-01	9.142525E-04	6.814698F-01	1.489656E-03
3.050	8.852818E-01	4.438964E-03	6.837745E-01	7.304695E-03

R.K.H. GEbel, Cumulative Blackbody Functions

λ_n	$\eta_{R}^{\dagger}(\lambda_{n}^{})$	$\eta_R^{\dagger}(\lambda_n) - \eta_R^{\dagger}(\lambda_{n-1})$	$\eta_{Q}^{\dagger}(\lambda_{n})$	$\eta_Q^{\dagger}(\lambda_n) - \eta_Q^{\dagger}(\lambda_{n-1})$
3.100	8.895095E-01	4.227702E-03	6.958466E-01	7.072049E-03
3.150	8.935379E-01	4.028386E-03	7.026948E-01	6.848218E-03
3.200	8.973781E-01	3.840256E-03	7.093276E-01	6.632865E-03
3.250	9.010407E-01	3.662604E-03	7.157533E-01	6.425658E-03
3.300	9.045355E-01	3.494770E-03	7.219796E-01	6.226277E-03
3.350	9.078716E-01	3.336137E-03	7.280140E-01	6.034409E-03
3.400	9.110578E-01	3.186132E-03	7.338637E-01	5.849751E-03
3.450	9.141020E-01	3.044220E-03	7.395358E-01	5.672010E-03
3.500	9.170119E-01	2.909902E-03	7.450367E-01	5.500905E-03
3.550	9.197946E-01	2.782714E-03	7.503728E-01	5.336163E-03
3.600	9.224568F-01	2.662220E-03	7.555503E-01	5.177523E-03
3.650	9.250048E-01	2.548017E-03	7.605751E-01	5.024732E-03
3.700	9.274446E-01	2.439727E-03	7.654526E-01	4.877548E-03
3.750	9.297816E-01	2.336996E-03	7.701884E-01	4.735740E-03
3.800	9.320211E-01	2.239497E-03	7.747874E-01	4.599086E-03
3.850	9.341680E-01	2.146921E-03	7.792548E-01	4.467371E-03
3.900	9.362270E-01	2.058981E-03	7.835952E-01	4.340392E-03
3.950	9.382024E-01	1.975408E-03	7.878132E-01	4.217953E-03
4.000	9.400983E-01	1.895950E-03	7.919130E-01	4.099867E-03
4.050	9.419187E-01	1.820373E-03	7.958990E-01	3.985956E-03
4.100 4.150	9.436671E-01 9.453471E-01	1.748457E-03	7.997750E-01	3.876048E-03
4.200	9.469619E-01	1.679995E-03 1.614795E-03	8.035450E-01 8.072126E-01	3.769979E-03
4.250	9.485146E-01	1.552675E-03	8.107813E-01	3.667592E-03 3.568739E-03
4.300	9.500081F-01	1.493466E-03	8.142546E-01	3.473276E-03
4.350	9.514451E-01	1.437009E-03	8.176357E-01	3.381067E-03
4.400	9.528282E-01	1.383154E-03	8.209277E-01	3.291981E-03
4.450	9.541600E-01	1.331762E-03	8.241336E-01	3.205892E-03
4.500	9.554427F-01	1.282701E-03	8.272562E-01	3.122682E-03
4.550	9.566785E-01	1.235848E-03	8.302985E-01	3.042237E-03
4.600	9.578696E-01	1.191085E-03	8.332629E-01	2.964448E-03
4.650	9.590179E-01	1.148305E-03	8.361521E-01	2.889210E-03
4.700	9.601253E-01	1.107404E-03	8.389686E-01	2.816423E-03
4.750	9.611936F-01	1.068285E-03	8.417146E-01	2.745993E-03
4.900	9.622245E-01	1.030857E-03	8.443924E-01	2.677829E-03
4.850	9.6321955-01	9.950354E-04	8.470042E-01	2.611842E-03
4.900	9.641803E-01	9.607382E-04	8.495522E-01	2.547951E-03
4.950	9.651081E-01	9.278896E-04	8.520383E-01	2.486075E-03
5.000	9.660046E-01	8.964178E-04	8.544644E-01	2.426137E-03
5.050	9.668708E-01	8.662548E-04	8.568325E-01	2.368066E-03
5.100	9.677082E-01	8.373367E-04	8.591442E-01	2.311790E-03
5.150	9.685178E-01	8.096032E-04	8.614015E-01	2.257244E-03
5.200	9.693008F-01	7.829971E-04	8.6360598-01	2.204363E-03
5.250	9.700582E-01	7.574644E-04	8.657589E-01	2.153086E-03
5.300	9.707912E-01	7.329542E-04	8.678623E-01	2.103354E-03
5.350	9.715006E-01	7.094184E-04	8.699174E-01	2.055111E-03
5.400	9.721874F-01	6.858111E-04	8.719257E-01	2.008303E-03
5.450	9.728525E-01	6.650894E-04	8.738886E-01	1.962879E-03
5.500	9.734967E-01	6.442123E-04	8.758074E-01	1.918788E-03
5.550	9.741208F-01	6.241410E-04	8.776834E-01	1.875983E-03

R.K.H. Gebel, Cumulative Blackbody Functions

$\lambda_{\mathbf{n}}$	$\eta_{R}^{\dagger}(\lambda_{n})$	$\eta_{R}^{\dagger}(\lambda_{n})\!-\!\eta_{R}^{\dagger}(\lambda_{n-1})$	$\eta_Q^{\dagger}(\lambda_n)$	$\eta_Q^{\dagger}(\lambda_n) - \eta_Q^{\dagger}(\lambda_{n-1})$
5.600	9.747257F-01	6.048389F-04	8.795178E-01	1.834420E-03
5.650	9.753120F-01	5.862712E-04	8.813118E-01	1.794054E-03
5.700	9.758804E-01	5.684049E-04	8.830667E-01	1.754843E-03
5.750	9.764316E-01	5.512089E-04	8.847834F-01	1.716747F-03
5.800	9.769662E-01	5.346533F-04	8.864631E-01	1.679728E-03
5.850	9.774849F-01	5.187100E-04	8.881069E-01	1.643749E-03
5.900	9.779883E-01	5.033522E-04	8.897157E-01	1.608774E-03
5.950	9.784768E-01	4.885546E - 04	8.912904E-01	1.574769E-03
6.000	9.789511E-01	4.742930F-04	8.928321E-01	1.541701E-03
6.050	9.794117F-01	4.605445E-04	8.943417E-01	1.509538E-03
6.100	9.798590F-01	4.472872E-04	8.958199E-01	1.478252E-03
6.150	9.802935F-01 9.807156E-01	4.345003E-04	8.972677E-01 8.986859E-01	1.447811E-03
6.250	9.811259E-01	4.221642E-04 4.102601E-04	9.000753E-01	1.418190E-03 1.389359E-03
6.300	9.815247E-01	3.987699E-04	9.014366F-01	1.361295E-03
6.350	9.819123F-01	3.876768E-04	9.027706E-01	1.333972E-03
6.400	9.822893F-01	3.769644E-04	9.040779E-01	1.307365E-03
6.450	9.826559F-01	3.666173E-04	9.053594E-01	1.281453F-03
6.500	9.830125E-01	3.566207E-04	9.066156E-01	1.256212E-03
6.550	9.833595E-01	3.469607E-04	9.078472E-01	1.231622E-03
6.600	9.836971E-01	3.376236E-04	9.090549E-01	1.207662E-03
6.650	9.840257E-01	3.285969E-04	9.102392E-01	1.184312F-03
6.700	9.843456E-01	3.198682E-04	9.114007E-01	1.161554E-03
6.750	9.846570E-01	3.114258E-04	9.125401F-01	1.139368F-03
6.800	9.849603E-01	3.032587E-04	9.136578F-01	1.117738E-03
6.850	9.852556E-01	2.953563F-04	9.147545E-01	1.096645E-03
6.900	9.855433E-01	2.877082E-04	9.158306E-C1	1.076075E-03
6.950	3.858236E-01	2.803049F-04	9.168866E-01	1.056010E-03
7.000 7.050	9.8609685-01 9.863630E-01	2.731371E-04 2.661958E-04	9.179230F-01 9.189403F-01	1.036436E-03
7.100	9.866225E-01	2.594725E-04	9.199391E-01	1.017338E-03 9.987014E-04
7.150	9.368754E-01	2.529592F-04	9.209196E-01	9.805129E-04
7.200	9.871221E-01	2.466481E-04	9.218823E-01	9.627592E-04
7.250	9.873626E-01	2.405317E-04	9.228277E-01	9.454276E-04
7.300	9.875972E-01	2.346029E-04	9.237563E-01	9.285055E-04
7.350	9.878260E-01	2.288548E-04	9.246582E-01	9.119813E-04
7.400	9.880493F-01	2.232910E-04	9.255641E-01	8.958433E-04
7.450	9.882672F-01	2.178751E-04	9.264442F-01	8.800805F-04
7.500	9.884798E-01	2.126311E-04	9.273088E-01	8.646821E-04
7.550	9.886874E-01	2.075433E-04	9.291585E-01	8.496378E-04
7.600	9.888900E-01	2.026762E-04	9.289934F-01	8.3+9375E-04
7.650	9.890878E-01	1.978144E-04	9.298140E-01	8 • 205716F-04
7.700	9.892810F-01	1.931629E-04	9.306205E-01	8.065707E-04
7.750	9.894696E-01	1.886468E-04	9.314133E-01	7.928058F-04
7.800	9.836539E-01	1.842614E-04	9.321927F-01	7.793881E-04
7.850 7.900	9.898339E-01 9.900097E-01	1.800023E-04 1.758650E-04	9.329590E-01 9.337124E-01	7.662690E-04 7.534405F-04
7.950	9.901816E-01	1.718455E-04	9.344533E-01	7.408946E-04
8.000	9.903495E-01	1.679397E-04	9.351819E-01	7.286237E-04
8.050	9.905137E-01	1.641439E-04	9.358986E-01	7.166202E-04
8.100	9.906741E-01	1.604544F-04	9.366034E-01	7.048771E-04

R.K.H. Gebel, Cumulative Blackbody Functions $n^{\dagger}(\lambda_{1}) = n^{\dagger}(\lambda_{2}) + n^{\dagger}(\lambda_{3}) + n^{\dagger$

$\lambda_{\mathbf{n}}$	$\eta_{\mathbf{R}}^{\dagger}(\lambda_{\mathbf{n}})$	$\eta_R^{\dagger}(\lambda_n) - \eta_R^{\dagger}(\lambda_{n-1})$	$\eta_Q^{\dagger}(\lambda_n)$	$\eta_Q^{\dagger}(\lambda_n) - \eta_Q^{\dagger}(\lambda_{n-1})$
8.150	9.909310F-C1	1.568676F-04	9.372968E-01	6.933873E-04
8.200	9.9)3844F-01	1.533801E-C4	9 '79790E-01	6.821441E-04
8.250	9.911344F-01	1.499837F-04	9.386501E-01	6.71141CE-04
8.300	9.912810F-01	1.4669 DZE - 04	9.393105E-01	6.603717E-04
8.350	9.914245F-01	1.434815E-04	5.309603E-01	6.498300E-04
8.400	9.915649E-01	1.4035998-04	9.405998E-01	6.395100E-04
8.450	9.917022E-01	1.373224F-04	9.412292E-01	6.294059E-04
8.500	9.918366E-01	1.343663F-04	9.418487E-01	6.195122E-04
8.550	9.919681F-01	1.314892E04	9.424586E-01	6.098235E-04
8.600	9.720968E-01	1.286884E-04	9.430589E-01	6.003345E-04
9.650	9.922227F-01	1.239615F-04	5.436499F-01	5.910401E-04
8.700	9.923460E-01	1.233363E-04	9.442319E-01	5.819354E-04
8.750	9.9246675-01	1.207205F-04	9.448049F-01	5.730156E-04
8.800	9.925849F-01	1.1827195-04	9.453692E-01	5.642762E-04
8.950	9.927007E-01	1.157435F-04	9.459249E-01	5.557124E-04
8.900	9.728141E-01	1.133582F-04	9.464722E-01	5.473202E-04
8.450	9.929251E-01	1.110291E-04	9.470113E-01	5.390950E-04
9.000	9.930338E-01	1.087534E-04	9.475423E-01	5.310330E-04
9.150	9.931404F-01	1.0654/25-04	9.480655E-01	5.2312998-04
9.100	9.932448F-01	1.043909E-04	9.485808E-01	5.153821E-04
9.150	9.933471E-01	1.022336E-04	9.470886E-01	5.077857E-04
9.200	9.934473F-01	1.002399E-04	9.495890E-01	5.003371E-04
9.250	9.935455E-C1	9.824012E-05	9.500820E-01	4.930326E-04
9.300	9.936418F-01	9.629079F-05	9.575679F-01	4.858689E-04
9.350	9.937362E-01	7.438945E-05	9.510467E-01	4.7884265-04
9.400	9.939288F-01	9.253470F-05	9.515187E-01	4.719504E-04
9.450	9.939195E-01	9.072516E-05	5.519838E-01	4.651892E-04
9.500	9.940084E-01	8.895954E-05	9.524424E-01	4.585559E-04
9.550	9.940957E-01	9.723655F-05	9.528944F-01	4.520475E-04
9.600	9.941812E-01	8.555498F-05	9.533401E-01	4.456611E-04
9.650 9.700	9.942652F-01	8.391363E-05 8.231137E-05	9.537795E-01 9.542127E-01	4.393938E-04 4.332430E-04
9.750	9.943475F+01 9.944282E-01	8.074708E-05	9.546399E-01	4.272058E-04
4.800	9.945074E-01	7.921968E-05	9.550612E-01	4.212798E-04
9.850	9.945852F-01	7.772816E-05	9.554767E-01	4.154624E-04
9.900	7.945614E-01	7.6271495-05	9.558864E-01	4.097512E-04
9.950	9.9473638-01	7.484871E-05	9.562906E-01	4.041436E-04
10.200	9.948097F-01	7.345888E-05	9.566892E-01	3.986375E-04
11.220	9.9603065-01	1.220895E-03	9.636436E-01	6.954374E-03
12.000	9.9589725-01	9.665497E-04	9.690522E-01	5.408580E-03
13.000	9.975290F-01	6.318445F-04	9.733403E-01	4.288117E-03
14.000	9.980005E-01	4.714442E-04	9.767968E-01	3.456468E-03
15.000	9.983593E-01	3.588336E-04	9.796232E-01	2.826401F-03
16.000	9.986372F-01	2.179195F-04	9.919636E-01	2.340441E-03
17.700	9.984558F-01	2.185688E-04	9.8392336-01	1.959682E-03
18.770	9.990300E-01	1.742435E-04	9.855804E-01	1.657157E-03
19.000	9.991706E-01	1.406029E-04	9.859942E-01	1.413781E-03
20.000	9.992853E-01	1.147398F-04	9.882100E-01	1.215787E-03
21.000	9.993798F-01	9.449554E-05	9.892631E-01	1.053079E-03
22.000	9.494584E-C1	7.855060F-05	9.901812E-01	9.181390E-04

R.K.H. Gebel, Cumulative Blackbody Functions

λ_{ii}	$\eta_R^{\dagger}(\lambda_n)$	$\eta_{\mathbf{R}}^{\dagger}(\lambda_{\mathbf{n}}) - \eta_{\mathbf{R}}^{\dagger}(\lambda_{\mathbf{n-1}})$	$n_{Q}^{\dagger}(\lambda_{n})$	$\eta_Q^{\dagger}(\lambda_n) - \eta_Q^{\dagger}(\lambda_{n-1})$
23.000	9.995242E-01	6.582998E-05	9.909865E-01	8.052908E-04
24.000	9.995798E-01	5.558277E-05	9.916967E-01	7.101946E-04
25.000	9.996270E-01	4.725375E-05	9.923262F-01	6.294943E-04
26.000	9.995675E-01	4.042778E-05	9.928868E-01	5.605668E-04
27.000	9.997023E-01	3.479087E-05	9.933881E-01	5.013422E-04
28.000	9.997324E-01	3.010292E-05	9.938383E-01	4.501722E-04
29.000	9.997585E-01	2.617854E-05	9.942440E-01	4.057331E-04
30.000	9.997814E-01	2.287326E-05	9.946110E-01	3.669540E-04
31.000	9.998015E-01	2.007350E-05	9.949439E-01	3.329621E-04
32.000	9.998192F-01	1.768925E-05	9.952470E-01	3.030410E-04
33.000	9.998348E-01	1.564869E-05	9.955236F-01	2.765994E-04
34.000	9.998487E-01	1.389403E-05	9.957767E-01	2.531458E-04
35.000 36.000	9.9986115-01	1.237853E-05	9.960090E-01	2.322701E-04
37.000	9.998722E-01 9.998821E-01	1.106413E-05 9.919637E-06	9.962226E-01 9.964195E-01	2.136275E-04 1.969274E-04
38.000	9.998910E-01	8.919365E-06	9.966015E-01	1.819233E-04
39.000	9.998990E-01	8.042046E-06	9.967699E-01	1.684052E-04
40.000	9.999063E-01	7.269985E-06	9.969261E-01	1.561937E-04
41.000	9.9991296-01	6.588384E-06	9.970712E-01	1.451347E-04
42.000	9.999189E-01	5.984819E-06	9.972063E-01	1.350954E-04
43.000	9.999243F-01	5.448810E-06	9.973323E-01	1.259610E-04
44.000	5.999293E-01	4.971484E-06	9.974499E-01	1.176317E-04
45.000	9.999339E-01	4.545298E-06	9. 975599E-01	1.100208E-04
46.000	9.999380E-01	4.163816E-06	9.976630E-01	1.030524E-04
47.000	9.999418E-01	3.821527E-06	9.977596E-01	9.666030E-05
48.000	9.999454E-01	3.513697E-06	9.978504E-01	9.078601E-05
49.000	9.999486E-01	3.236246E-06	9.979358E-01	8.537818E-05
50.000	9.999516E-01	2.985647E-06	9.980162E-01	8.039142E-05
51.700	9.999543E-01	2.758841E-06	9.980920E-01	7.578553E-05
52.010	9.999569E-01	2.553167E-06	9.981635E-01	7.152484E-05
53.000 54.000	9.999593E-01	2.366307E-06	9.982311E-01	6.757762E-05
55.000	9.999614E-01 9.999635E-01	2.196233E-06 2.041167E-06	9.982950E-01 9.983555E-01	6.391555E-05 6.051334E-05
56.000	9.999654E-01	1.899548E-06	9.984129E-01	5.734836E-05
57.000	9.999672E-01	1.7700 00E - 06	9.984673E-01	5.440029E-05
58.000	9.999688E-01	1.651310E-06	9.935189E-01	5.165084E-05
59.000	9.999704E-01	1.542403E-06	9.985680E-01	4.908359E-05
60.0)0	9.999718E-01	1.442329E-06	9.986147E-01	4.668368E-05
61.300	9.999732E-01	1.350240E-06	9.986591E-01	4.443770F-05
62.000	9.999744E-01	1.265385E-06	9.987014E-01	4.233351E-05
63.000	9.999756E-01	1.187092E-06	9.987418E-01	4.036008F-05
64.900	9.999767E-01	1.114761E-06	9.987803E-01	3.850742E-05
65.000	9.999778E-01	1.047857E-06	9.988171E-01	3.676644E-05
66.000	9.999787E-01	9.858969E-07	9.988522E-01	3.512883E-05
67.000	9.999797E-01	9.284495E-07	9.988858E-01	3.358705E-05
68.000	9.999805E-01	8.751261E-07	9.989179E-01	3.213418E-05
69.000	9.999814E-01	8.255763E-07	9.989487E-01	3.076391E-05
70.000	9.999822F-01	7.794842E-07	9.989782E-01	2.947045E-05
71.000	9.999829F-01	7.365643E-07	9.990064E-01	2.824849E-05
72.000	9.999836E-01	6.965581E-07	9.990335E-01	2.709316E-05

R.K.H. Gebel, Cumulative Blackbody Functions

$\lambda_{\mathbf{n}}$	$n_{\mathbf{R}}^{\dagger}(\lambda_{\mathbf{n}})$	$\eta_{R}^{\dagger}(\lambda_{n}) - \eta_{R}^{\dagger}(\lambda_{n-1})$	$\operatorname{ri}_{\mathbb{Q}}^{\dagger}(\lambda_{n})$	$n_{Q}^{\dagger}(\lambda_{n}) \text{-} n_{Q}^{\dagger}(\lambda_{n-1})$
73.000	9.999843F-01	6.592316E-07	9.990595F-01	2.594998F-05
74.000	9.999849F-01	6.243721E-07	9.49C845F-01	2.496483F-05
75.000	9.999855F-01	5.917866E-07	9.991084F-01	2.398390E-05
76.000	9.999860E-01	5.612993E-07	9.991315E-01	2.305370F-05
77.)10	9.999866F-01	5.327502E-07	9.9915376-01	2.217098F-05
78.700	9.999871E-01	5.059934E-07	9.991750F-01	2.133276E-05
79.000	9.999875E-01	4.808954E-07	9.991956E-01	2.053626E-05
80.000	9.9998815-01	4.573344E-67	9.992153E-01	1.977892E-05
81.000	9.999884E-01	4.351988E-07	9.492344E-01	1.9058376-05
82.000	9.999889E-01	4.143864E-07	9. 92527F-01	1.937240E-05
83.000	9.999892F-01	3.948033F-07	9.992705E-01	1.771895E-05
84.010	9.999896F-01	3.763635F-07	9.992876F-01	1.709613E-05
85.000	9.999900E-01	3.589878E-07	9.993C41E-01	1.650215E-05
86.000	9.999933F-C1	3.42£734E-07	9.493200E-01	1.593538E-05
87.000	9.999907F-01	3.271431E-07	9.993354E-01	1.539427E-05
88.000	9.999910F-01	3.125451E-07	9. C 3303E-01	1.4877316-05
89.000	9.999913E-01	2.987523E-07	9.593647E-01	1.438337E-05
90.000	9.999915F-01	2.857121E-07	9.993786E-C1	1.3910998-05
91.000	9.999918F-01	2.733756F-07	9. 93920F-01	1.345907E-05
92.000	5.999921E-01	2.6159795-07	9.994051E-C1	1.3026525-05
93.000	9.999923E-01	2.506370E-07	0.094177E-01	1.261231E-05
94.000 95.000	9.999976E-01	2.401545E-07 2.302142E-07	9.9942995-01	1.2215476-05
96.000	9.999928F-01	2.307142E-07	9.994417E-01 9.994532E-01	1.183511E-05 1.147037E-05
97.000	9.99993CE-01	2.118297F-07	9.994643E-01	1.1120476-05
98.000	9.999934E-C1	2.033259E-07	9.994751F-01	1.078466E-05
99.000	9.999936E-01	1.952444E-07	9.994856E-01	1.046223E-05
100.000	9.999938F-01	1.875605E-07	9.994957E-01	1.015253E-05
101.200	9.99994CE-01	1.8025095-07	9.995056E-01	9.854930F-06
102.010	9.999942E-01	1.732939E-07	9.995151E-0.	9.568850E-06
103.200	9.999943F-01	1.6665945-07	9.495244E-01	9.293737E-06
104.900	9.999945E-01	1.603584E-07	9.995335E-01	9.029069E-06
105.000	9.999947E-01	1.543433E-07	9.995422E-01	8.774355F-06
106.000	9.999948E-C1	1.486076E-07	9.995508F-01	8.529134E-06
107.000	5.999949F-01	1.431359F-07	9.995591E-01	8.292965E-06
108.000	5.999951F-01	1.379137E-07	9.995671E-01	8.065436E-06
109.000	9.999952E-01	1.329275E-07	9.995750E-01	7.846154E-06
110.000	9.999954E-01	1.2816478-07	9.975826E-01	7.634749E-06
111.000	9.999955E-01	1.236132E-07	9.595900E-01	7.430872E-06
112.000	9.999956F-C1	1.192520E-07	9.995973E-01	7.234189F 06
113.000	9.999957E-01	1.1510065-07	9.996043E-01	7.044386E-06
114.000	9.999958E-01	1.111191F-07	9.996112E-01	6.861166E-06
115.000	9.999959E-01	1.073083E-07	9.996179E-C1	6.684244E-06
116.000	9.99396CF-01	1.036595E-07	9.996244E-01	6.513354E-06
117.000	9.999961E-01	1.001644E-07	9.936307E-01	6.348239F-06
118.000	5.999952F-01	9.681546E-08	9.996369F-01	6.188658E-06
119.000	9.999963E-01	9.360528F-08	9.996429F-01	6.034381E-06
120.000	9.999964F-01	9.052705E -08	9.996488E-01	5.885190F-06
121.000	5.999965E-01	8.757432E-08	9.996546E-01	5.740977E-06
122.000	9.999966F-01	8.474100E-08	9.996602E-01	5.601243F-06

R.K.H. Gebel, Cumulative Blackbody Functions $n^{\dagger}(\lambda_{1}) = n^{\dagger}(\lambda_{1}) - n^{\dagger}(\lambda_{2}) + n^{\dagger}(\lambda_{3}) + n^{\dagger$

γn	$\eta_{R}^{\top}(\lambda_{n})$	$\eta_{\mathbf{R}}^{T}(\lambda_{\mathbf{n}}) - \eta_{\mathbf{R}}^{T}(\lambda_{\mathbf{n}-1})$	$η_Q^{\dagger}(\lambda_n)$	$\eta_{Q}^{\dagger}(\lambda_{n}) - \eta_{Q}^{\dagger}(\lambda_{n-1})$
123.000	5.999967E-01	8.202134E-08	9.996656E-01	5.466102E-06
124.000	9.999957F-01	7.9409926-08	9.496710F-01	5.335272E-06
125.000	5.999968E-01	7.690160E-08	9.596762E-01	5.208585E-06
126.000	9.999969E-01	7.449155E-08	9.996813F-01	5.085878E-06
127.010	9.99997CE-01	7.217517E-08	9.996862F-01	4.966994E-06
128.000	9.999970F-01	6.994813E-08	9.904011 =- 01	4.851787E-06
129.000	5.939971F-01	6.780633E-08	9.996958E-01	4.740116E-06
130.000	9.9990728-01	6.574583E-08	9.997005E-01	4.631845E-06
131.000	9.999972F-01	6.376310E-08	9.997050E-01	4.526847E-06
132.000	9.999973E-01	6.185451E-08	9.9970948-01	4.424999E-06
133.200	S.999974F-01	6.001587E-08	9.997137E-01	4.326182E-06
134.000	5.999974E-01	5.824683F-08	9.997180E-01	4.230287E-06
135.000	5.993975F-01	5.654163F-08	9.997221E-01	4.137205E-06
136.000	9.999975E-01	5.489838E-08	9.997262E-01	4.046833E-06
137.700	9.999976E-01	5.331439F-08	9.997301E-01	3.959075F-06
138.000	9.999976E-01	5.178713E-08	9.497340E-01	3.873836E-06
139.000	5.999977F-C1	5.031416E-08	9.997378E-01	3.791026E-06
140.000	5.999977F-C1	4.889318E-08	9.997415E-01	3.710560E-C6

R.K.H. Gebel. Blackbody functions.

T	$Q_{O,\Delta\lambda}(T)$	$N_{O,\Delta\lambda}(T)$
°K	Quanta s ⁻¹ m ⁻² sr ⁻¹ 0.7 μm to 1.3 μm	Wm ⁻² sr ⁻¹ 0.7 μm to 1.3 μm
50 100 150	0 • 0 • 0 •	0. 0. 0.
200 250 300	0. 0. 7.4183812ë 08	0. 5.78378336-14 1.1663439E-10
350 400 450 500	1.6986542E 11 1.0201348E 13 2.5054792E 14 3.2861920E 15	2.68343832-08 1.6195412E-06 3.9975798E-05 5.2697936E-04
500 700 800	1.6065258F 17 2.6611040E 18 2.2343580F 19	2.6028073E-02 4.3566429E-01 3.6970270E 00
900 1000 1500 2000	1.1902313E 20 4.6040562E 20 3.0040489E 22 2.7120962E 23	1.9906768E 01 7.7843011E 01 5.3561037E 03
2500 3000 3500	1.0768663E 24 2.7915432E 24 5.6271337E 24	5.0514432± 04 2.0823538± 05 5.5441931± 05 1.1402698± 06
4000 4500 5000 6000	9.6539069E 24 1.4842187E 25 2.1106981E 25 3.6428843E 25	1.9864411: 06 3.0905220E 06 4.4364782E 06
7000 8000 9000	5.4757802E 25 7.5370316E 25 9.7717252E 25	7.7627298: 06 1.1778684: 07 1.5322591: 07 2.1269636: 07
10000	1.2139436E 26	2.6527010: 07

R.K.H. Gebel, Blackbody functions.

T	$Q_{O,\Delta\lambda}(T)$	$N_{O,\Delta\lambda}(T)$
°K	Quanta $s^{-1} m^{-2} sr^{-1}$ 1.95 μ m to 2.5 μ m	$Wm^{-2} sr^{-1}$ 1.95 μ m to 2.5 μ m
50 100 150	0. 0. 2.2767796E 07	0. 0. 1.8683240E-12
200	4.5452656E 11	3. 7460753E-08
250 300	1.8221158E 14	1.5154718E-05
350	1.0268192E 16 1.8728322E 17	8.6135417E-04
400	1.6798889E 18	1.5833121E-02 1.4300740E-01
450	9.3583790E 18	8.0154709E-01
500	3.7271353E 19	3.2094156E 00
600	3.0060698E 20	2.6113656E 01
700	1.3512100E 21	1.1818165E 02
800 900	4.20094035 21	3.6940652E 02
1000	1.0197630E 22 2.0798603E 22	9.0058728E 02
1500	1.80912515 23	1.8432448E 03 1.6204595E 04
2000	5.4930260E 23	4.9456933E 04
2500	1.09581185 24	9.8953403E 04
3000	1.77198488 24	1.6031110E 05
3500	2.53954509 24	2.3004370E 05
4000	3.3720371£ 24	3.0573353E 05
4500 5000	4.2516044E 24	3.8574559E 05
6000	5.1660843E 24	4.6896485E 05
7000	7.0684444E 24 9.0364074E 24	6.4214928E 05
8000	1.1046811E 25	8.2136534E 05 1.0044847E 06
9000	1.30861412 25	1.1902650E 06
10000	1.51460275 25	1.3779365E 06

R.K.H. Gebel, Blackbody functions.

T	$Q_{O,\Delta\lambda}(T)$	$N_{O,\Delta\lambda}(T)$
°K	Quanta s ⁻¹ m ⁻² sr ⁻¹ 3.35 μm to 4.6 μm	$Wm^{-2} sr^{-1}$ 3.35 μ m to 4.6 μ m
50	0.	0.
100	5.4699001E 09	2.4429245E-10
150	2.8545935E 14	1.2974000E-05
200	7.1826563E 16	3.3197829E-03
250	2.0904274E 18	9.8073232E-02
300	2.0415001E 19	9.6999071E-01
350	1.0597783E 20	5.0886340E 00
400	3.6890079E 20	1.78677498 01
450	9.8102349E 20 2.1571335E 21	4.7859531E 01 1.0587125E 02
500 600	7.1065380E 21	3.5206619E 02
700	1.6806241E 22	8.3832422E 02
800	3.2263530E 22	1.61769348 03
900	5.3871354E 22	2.71191886 03
1000	8.1566749E 22	4.1191036E 03
1500	2.9637541E 23	1.51028418 04
2000	5.9642904E 23	3.0518814E 04
2500	9.4316875E 23	4.8372278E 04
3000	1.3167800E 24	6.7631466E 04
3500	1.7069404F 24	8.7757305E 04
4000	2.1079153E 24	1.08449846 05
4500	2.5163094E 24	1.2953132E 05
5000	2.9299995E 24	1.5089051E 05
6000	3.7681501E 24	1.94173806 05
7000	4.6156619E 24	2.3794821£ 05
8000	5.4690918E 24	2.8203313E 05
9000	6.3264961E 24 7.1856964E 24	3.2632662£ 05
10000	7.1856964E 24	3.7076683E 05

R.K.H. Gebel. Blackbody functions.

Т	$Q_{O,\Delta\lambda}(T)$	$N_{O,\Delta\lambda}(T)$
°K	Quanta $s^{-1} m^{-2} sr^{-1}$ 8.5 μ m to II μ m	Wm ⁻² sr ⁻¹ 8.5 μm to !! μm
50	8.0834258E 10	1.51980651-07
100	8.0764829E 16	1.57200681 -03
150 200	9.2918901E 18 1.0383264E 20	1.8464945E-01
250	4.4922768E 20	2.08875681 00 9.1072010: 00
300	1.2043311E 21	2.4543598t 01
350	2.4539725E 21	5.0196941E G1
400	4.2122046E 21	8-63992021 01
450	6.4498190E 21	1.32573456 02
500	9.1181089E 21	1.87725940 02
600	1.5534051E 22	3.2057834 02
700	2.3073546E 22	4.76943381 02
800	3.1439670L 22	6.5063366 02
900	4.0419372E 22	8.37197075 02
1000	4.9861728E 22	1.0334741r 03
1500	1.0111305E 23	2.09974441 03
2000	1.5563079E 23	3.23470475 03
2500	2.1153334E 23	4.39880321 03
3000	2.6814533E 23	5.5778329. 03
3500	3.25167855 23	6.7655038÷ C3
4000	3.8244885E 23	7.95861581 03
4 5 00 5000	4.3990297E 23	9.1553723 03
6000	4.9747868E 23 6.1287390E 23	1.0354688t 04
7000	6.1287390E 23 7.2847858E 23	1.2758454 04
8000	3.4421442E 23	1.51666291 04 1.7577565L 04
9000	9.6003779E 23	1.9990344: 04
10000	1.07592256 24	2.2404415: 04

R.K.H. Gebel, Blackbody functions.

T	$Q_{O,\Delta\lambda}(T)$	$N_{O,\Delta\lambda}(T)$
°K	Quanta s ⁻¹ m ⁻² sr ⁻¹ 3.4 μm to 4 μm	Wm ⁻² sr ⁻¹ 3.4 μm to 4 μm
290.00 291.00	3•0878030E+18 3•2308391E+18	1.6293597E-01 1.7049867E-01
292.00	3•3794661E+18	1.7835770E-01
293.00	3.5338591E+18	1.8652234E-01
294.00	3.6941971E+18	1.9500212E-01
295.00	3.8606630E+18	2.0380678E-01
296.00 297.00	4.0334440E+18 4.2127312E+18	2.1294624E-01
298.00	4.3987198E+18	2.2243069E-01 2.3227051E-01
299.00	4.5916092E+18	2.4247631E-01
299.10	4.6112855E+18	2.4351743E-01
299.20	4.6310330E+18	2.4456233E-01
299.30	4.6508520E+18	2.4561102E-01
299.40	4.6707427E+18	2.4666351E-01
299.50	4.6907052E+18	2.4771982E-01
299.60	4.7107398E+18	2.4877995E-01
299.70 299.80	4•7308467E+18 4•7510261E+18	2.4984391E-01 2.5091172E-01
299.90	4.7712781E+18	2.5198338E-01
299.91	4.7733074E+18	2.5209076E-01
299.92	4.7753373E+18	2.5219617E-01
299.93	4.7773680E+18	2.5230563E-01
299.94	4.1793994E+18	2.5141313E-01
299.95	4.7814315E+18	2.52520665-01
299.96	4 • 7834644E+18	2.5262823[-01
299.97	4.7854980E+18	2.5273584E-01
299•98 299•99	4•7875323E+18 4•7895673E+18	2.5284349E-01
300.00	4.7916031E+18	2.5295118E-01 2.5305891E-01
11.1.	** 1710UJ1E * 10	2 • 2 3 U PO 3 1 E = U I

R.K.H. Gebel, Blackbody functions.

$Q_{O,\Delta\lambda}(T)$	$N_{O,\Delta\lambda}(T)$
Quanta s ⁻¹ m ⁻² sr ⁻¹ 8.5 μm to 11 μm	Wm ⁻² sr ⁻¹ 8.5 μm to 11 μm
1.0152892E+21 1.0333033E+21 1.0515140E+21 1.0699219E+21 1.0885273E+21 1.1073307E+21 1.1263324E+21 1.1455330E+21 1.1649327E+21 1.1845319E+21 1.1845319E+21 1.1845319E+21 1.1904506E+21 1.1904506E+21 1.1924276E+21 1.1944065E+21 1.1983703E+21 1.1983703E+21 1.2023421E-21 1.2023421E-21 1.2027398E+21 1.2027398E+21 1.2033363E+21 1.2037342E+21 1.2037342E+21 1.2037342E+21	2.0672363E+01 2.1041108E+01 2.1413911E+01 2.1790785E+01 2.2171737E+01 2.2556777E+01 2.2556777E+01 2.3339156E+01 2.3736512E+01 2.4137990E+01 2.413781F+01 2.4218781F+01 2.4259239E+01 2.4299737E+01 2.4299737E+01 2.4340277F+01 2.4380859E+01 2.4462146E+01 2.4502851E+01 2.4502851E+01 2.45071F+61 2.4519145F+01 2.4519145F+01 2.4527294E+01 2.4531370E+01 2.4535445E+01 2.4535445E+01 2.4535445E+01
1.2043311E+21	2.4543598E+01
	Quanta s^{-1} m ⁻² sr^{-1} 8.5 μ m to II μ m

R.K.H. Gebel, Blackbody functions.

T _b	$\Delta Q_{0,\Delta\lambda}(T_b)$ $\Delta (300° K-T_b)$	$\Delta N_{0,\Delta\lambda}(T_b)$ $\Delta (300° K-T_b)$
°K	Quanta s ⁻¹ m ⁻² sr ⁻¹ 3.4 μm to 4 μm	Wm ⁻² sr ⁻¹ 3.4 μm to 4 μm
290.00 291.00 292.00 293.00 294.00 295.00 296.00 297.00 298.00 299.00 299.10 299.20 299.30 299.40 299.50 299.60 299.70 299.80 299.90 299.91	1.7038001E+18 1.5607640E+18 1.4121370F+18 1.2577440E+18 1.0974060E+18 9.3094010E+17 7.5815911E+17 5.7887195E+17 3.9288337E+17 1.9999394E+17 1.8031764E+17 1.6057G10E+17 1.4075111E+17 1.2086045E+17 1.0089792E+17 8.0863328E+16 6.0756444E+16 4.0577067E+16 2.0324989E+16 1.8295774E+16	9.0122943E-02 8.2560235E-02 7.4701213E-02 6.6536568E-02 5.8056785E-02 4.9252133E-02 4.0112663E-02 3.0628213E-02 2.0788396E-02 1.0582603E-02 9.5414800E-03 8.4965780E-03 7.4478861E-03 6.3953934E-03 5.3390888E-03 4.2789613E-03 3.2149997E-03 2.1471931E-03 1.0755302E-03 9.6815143E-04
299.92 299.93 299.94 299.95 299.96 299.97 299.98 299.99	1.6265830E+16 1.4235157E+16 1.2203754E+16 1.0171621E+16 8.1387583E+15 6.1051648E+15 4.0708407E+15 2.0357858E+15	8.6073393E-04 7.5327774E-04 6.4578285E-04 5.3824923E-04 4.3067689E-04 3.2306580E-04 2.1541597E-04 1.0772737E-04 0.0000000E-99

R.K.H. Gebel, Blackbody functions.

T _b	$\Delta Q_{0,\Delta\lambda}(T_b)$ $\Delta (300^{\circ} K-T_b)$ Quanta s ⁻¹ m ⁻² sr ⁻¹ 8.5 μ m to 11 μ m	$\Delta N_{0,\Delta\lambda}(T_b)$ $\Delta (300^{\circ} K-T_b)$ $Wm^{-2} sr^{-1}$ 8.5 μ m to $II \mu$ m
290.00 291.00 292.00 293.00 294.00 295.00 296.00 297.00 298.00 299.10 299.20 299.30 299.40 299.50 299.50 299.90 299.90 299.90 299.90 299.90 299.90 299.90	1.8904182E+20 1.7102775E+20 1.5281702E+20 1.3440917E+20 1.1580377E+20 9.7000404E+19 7.7998647E+19 5.8798108E+19 3.9398401E+19 1.9799152E+19 1.7828238E+19 1.3880412E+19 1.1903499E+19 9.9245864E+18 7.9436721E+18 5.9607567E+18 3.9758398E+18 1.9889210E+18 1.7901190E+18 1.5912969E+18 1.1935928E+18 1.1935928E+18 9.9471079E+17 7.9580868E+17 5.9688655E+17 3.9794439E+17 1.9898220E+17	3.8712345E-00 3.5024904E-00 3.1296865E-00 2.7528132E-00 2.3718611E-00 1.9868211E-00 1.5976842E-00 1.2044419E-00 8.0708588E-01 4.0560784E-01 3.6523302E-01 3.2481690E-01 2.4386071E-01 2.0332062E-01 1.6273920E-01 1.6273920E-01 1.2211643E-01 8.1452321E-02 4.0746844E-02 3.6674021E-02 3.2600784E-02 2.8527134E-02 2.4453070E-02 2.4453070E-02 2.0378593E-02 1.6303702E-02 1.6303702E-02 1.6303702E-02 1.6303702E-02 1.6303702E-02 1.6303702E-02 1.6303702E-02
300.00	0.900 00 00E-99	0.000000E-99

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{O_1,\Lambda\lambda}$ and Radiance $N_{O_1,\Lambda\lambda}$.

T = 50°K

λ_{\min}	λ _{max}	$Q_{0,\Delta\lambda}$	$N_{0,\Delta\lambda}$ W m ⁻² sr ⁻¹
×10 ⁻⁹ m	×10 ⁻⁹ m	Quanta $s^{-1} m^{-2} sr^{-1}$	W m ~ sr ~
2000	2100	0.	0.
2100	2200	0.	0.
2200	2300	0.	0.
∠300	2400	0.	0.
400	∠500	0.	0.
2500	2600	0.	0.
2600	27 00	0.	0.
2700	2000	0.	0.
∠800	2900	0.	0.
5 4 0 C	000 د	0 •	0.
3000	3200	0.	0.
3200	3400	0.	0.
3400	600د	0.	0.
3600	3800	0.	0.
3800	4000	0.	0.
4000	4200	0.	0.
4200	4400	G •	0.
4400	4600	0.	0.
4600	4800	0.	0.
4800	5000	0.	0.
5000	5500	0.	0.
5500	6000	0.	0.
600C	6500	0.	9.2540534D-17
6500	7000	6.14299320 04	1.7274233D-15
7000	7500	7.81822770 05	2.1245764D-14
7500	3000	7.37705639 06	1.8717865D-13
3000	ყ 500	5.24268020 07	1.2518421D-12
850C	9000	2.95406150 08	6.6594636D-12
9000	9500	1.3693458D 09	2.9233886D-11
9500	10000	5.38000170 09	1.09065390-10
10000	11000	7.37893830 10	1.3748455D-09
11000	12000	5.24596780 11	8.95679620-09
12000	13000	2.6806963D 12	4.22198110-08
000د 1	14000	1.05809530 13	1.54605250-07
14000	15000	3.40144210 13	4.63414270-07
15000	10000	9.26678120 13	1.18238530-06

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{O_3,\Delta\lambda}$ and Radiance $N_{O_3,\Delta\lambda}$.

T _	٦	$^{\circ}$	Λ	0	ν
=	- 1	U	U	0	ľ٠

$\lambda_{ exttt{min}}$	λ _{max}	QO, AA		$N_{O,\Delta\lambda}$
×10 ⁻⁹ m	$\times 10^{-9}$ m	Quanta $s^{-1} m^{-2}$	sr^{-1}	$W m^{-2} sr^{-1}$
2000	2100	0.		0.
2100	2200	0.		0.
2200	2300	0.		0.
2300	2400	0.		0.
2400	2500	0.		0.
2500	2600	0.		0.
2600	2700	0.		0•
2700	2800	0.		9.
2800	2900	0.		0.
2900	3000	0.		0.
3000	3200	0.		7.40324270-16
3200	3400	1.34026760	05	8.63711650-15
3400	3600	1.3402676D	06	7.46493640-14
3600	800د	9.47122450	06	5.04284220-13
3800	4000	5.4816945D	07	2.77559910-12
4000	4200	2.66043120	08	1.28174810-11
4200	4400	1.10674830	09	5.0887670D-11
4400	4600	4.03139100	09	1.77228080-10
4600	4800	1.30745790	10	5.50630370-10
4800	5000	3.82986830	10	1.54780570-09
5000	5500	5.90315060	11	2.19975280-08
5500	6000	4.19677420	12	1.4330874D-07
6000	5500	2.1445570D	13	6.75516980-07
6500	7000	8.46476270	13	2.47368390-06
7000	7500	2.7211537D	14	7.4146283D-06
7500	8000	7.4134249D	14	1.89181650-05
6000	3500	1.76439840	15	4.23330990-05
8500	9000	3.75585780	15	8.50219980-05
9000	9500	7.28437640	15	1.56067290-04
9500	10000	1.30629770	16	2.65633600=04
10000	11000	5.66615620	16	1.36528290-03
11000	12000	1.28307870	17	2.20644840-03
12000	13000	2.48554850	17	3.93717700-03
13000	14000	4.26960120	17	6.2676440D-03
14000	15000	6.67504710	17	9.1287237D-03
15000	16000	9.6826690D	17	1.23933210-02

 $_{R.K.H.}$ Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{O_1,\Delta\lambda}$ and Radiance $N_{O_1,\Delta\lambda}$.

T = 200°K

$\lambda_{ exttt{min}}$	$\lambda_{ exttt{max}}$	$Q_{O,\Delta\lambda}$	No,AA
×10 ⁻⁹ m	×10 ⁻⁹ m	Quanta $s^{-1} m^{-2}$	sr^{-1} $W m^{-2} sr^{-1}$
1310	1320	0.	0.
1320	1330	0.	0.
1330	1340	0.	0.
1340	1350	0.	0.
1350	1360	0.	0.
1360	1370	0.	0.
1370	1380	0.	0.
1380	1390	0.	0.
1390	1400	0.	0.
1400	1410	0.	0.
1410	1420	0.	0.
1420	1430	0.	0.
1430	1440	0.	0 •
1440	1450	0.	0.
1450	1460	0.	0.
1460	1470	0.	0. 0.
1470 1480	1430	0.	
1490	149 0 1500	0. 0.	0. 0.
1500	1510	ŏ.	0.
1510	1520	0.	0.
1520	1530	0.	0.
1530	1540	0.	1.97419810-15
1540	1550	0.	0.
1550	1560	0.	1.97419810-15
1560	1570	0.	0.
1570	1580	0.	1.97419810-15
1580	1590	0.	1.97419810-15
1590	1600	0.	3.94839610-15
1600	1610	0.	3.94839610-15
1610	1620	0.	3.94839610-15
1620	1630	0.	7.99679220-15
1630	1640	0.	7.89679220-15
1640	1650	3.5740470C	05 9.8709903D-15
1650	1660	0.	1.1845188D-14
1660	1670	0.	1.57935840-14
1670	1680	3.57404700	05 2.17161790-14
1690	1690	0.	2.36903770-14
1690	1700		05 3.15871690-14
1700	1710		05 3.9483961D-14
1710	1720		05 4.93549520-14
1720	1730		05 5.9225942D-14
1730	1740		05 7.50195260-14
1740	1750		06 9.27873090-14
1750	1760.		05 1.12529290-13
1760	1770		06 1.38193860-13
1770	1780		06 1.69781030-13
1780	1790		06 2.0729080D-13
1790	1800		06 2.50723150-13
1800	1810	2.5018329D	06 3.06000700-13

R.K.H. Gebel, Blackbody functions. Biackbody Quantum Radiance $Q_{O_1,\Delta\lambda}$ and Radiance $N_{O_1,\Delta\lambda}$.

 $T = 200^{\circ} K$

λ_{\min}	λ _{max}	$Q_{O,\Delta\lambda}$		$N_{O,\Delta\lambda}$
×10 ^{−9} m	$\times 10^{-9}$ m	Quanta $s^{-1} m^{-2}$	sr ⁻¹	$\mathrm{W}~\mathrm{m}^{-2}~\mathrm{sr}^{-1}$
1810	182C	3.57404700	06	3.69175040-13
1820	1830	3.9314517D	06	4.48142960-13
1870	1840	5.00366580	05	5.38956070-13
1840	1850	6.07587990	06	6.49511160-13
1850	1860	7.50549860	06	7.79808230-13
1860	1870	8.57771270	06	9.35769880-13
1870	1890	1.07221410	07	1.11739610-12
1880	1890	1.2509164D	07	1.33455790-12
1890	1900	1.53684020	07	1.58922947-12
1900	1910	1.78702350	C7	1.8893075L-12
1910	1920	2.1801687D	07	2.2407148D-12
1920	1930	2.5733138D	07	2.65529640-12
1930	1940	3.03793990	07	3.1389749D-12
1940	1950	3.64552790	07	3.70162140-12
1950	1960	4.2888564D	07	4.35902930-12
1960	1970	5.03940620	07	5.12501920-12
1970	1980	6.0043999D	07	6.01538150-12
1980	1990	7.04087250	C7	7.04591290-12
1990	2000	8.2560485D	07	8.23832850-12
2000	2010	9.7214078D	C7	9.6182930D-12

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta^{1}}$. T = 200°K

		$I = 500 \mathrm{eK}$	
λ _{min} ×10 ⁻⁹ m	λ _{max} ×10 ⁻⁹ m	$Q_{0,\Delta\lambda}$ Quanta s ⁻¹ m ⁻² sr ⁻¹	$\frac{N_{O,\Delta\lambda}}{\text{W m}^{-2} \text{sr}^{-1}}$
2000	2100	2.12834500 09	2.05079690-10
2100	2200	8.85398660 09	8.14202710-10
2200	2300	3.22511280 10	2.83564930-09
2300	400	1.0459663D 11	8.81008590-09
2400	2500	3.06399470 11	2.4764891D-08
2500	2600	8.20420700 11	6.3737438D-08
2600	2700	2.02838070 12	1.5172386D-07
∠700	_ ROC	4.67457610 12	3.3695934D-07
2800	2900	1.01104750 13	7.0340009D=07
2900	3300	2.06623610 13	1.3890795D-06
3000	3200	1.14544710 14	7.2966008D-06
3200	400د	3.59089870 14	2.1511737D-05
400د	600د	9.7643408D 14	5.5203247D - 05
3600	3800	2.35764530 15	1.26165090-04
2800	4000	5.14853450 15	2.6153524D-04
4000	→200	1.03232140 16	4.9903206D-04
+20C	4400	1.92374590 16	8.87024440-04
4400	4600	3.36550067 16	1.4832842D-03
4600	4800 - 200	5.5736053D 16	2.35252460-03
4800	5000	8.79891470 16	3.5630305D=03
5000	5500	4.53292497 17	1.70445260-02
5500 6000	6000 0500	1.02646290 18	3.53031750-02
0500	7000	1.9384388D 18 3.4156809D 18	6.2994832D=02
7000	7500	5.34003777 18	1.00282300-01 1.4605958D-01
7500	3000	7.74613520 18	1.9829313D-01
8000	3500	1.05782740 19	2.5446899D=01
8503	9000	1.37523440 19	3.1200096D-01
7000	9500	1.71688030 19	3.68529480-01
4500	10000	2:0724158D 19	4.2209803D-01
10000	11000	5.21873060 19	9.8612788D-01
1.000	12000	6.5831975D 19	1.1364736D 00
12000	13000	7.78805230 19	1.2373907D 00
13000	14000	8.78290190 19	1.29241220 00
14000	15000	9.5521898D 1°	1.30888930 00
15000	15000	1.01036670 20	1.29527510 00

R.K.H. Gebel, blackbody functions. Blackbody Quantum Radiance $Q_{O_1,\Lambda\lambda}$ and Radiance $N_{O_1,\Lambda\lambda}$.

Amin			T = 300°K	
	λ	λ		No. A
800 810 0. 0. 0. 0. 810 820 0. 0. 0. 820 830 C. 0. 0. 830 840 0. 0. 0. 850 850 0. 0. 0. 850 860 0. 0. 0. 860 870 0. 0. 880 890 0. 0. 0. 899 990 900 0. 0. 999 900 910 0. 0. 9990 910 0. 0. 920 930 90. 0. 0. 920 930 940 0. 0. 950 960 970 0. 0. 950 960 970 0. 0. 990 900 0. 0. 0. 990 900 0. 0. 0. 950 960 970 0. 0. 990 990 0. 0. 0. 950 960 970 0. 0. 990 990 0. 0. 0. 950 960 970 0. 0. 990 990 0. 90. 0. 970 980 990 0. 90. 990 990 0. 90. 990 990 0. 90. 9		^max		-1
810 920 0. 0. 0. 820 830 C. 0. 0. 860 0. 0. 860 860 0. 0. 0. 880 850 860 0. 0. 0. 880 860 0. 0. 0. 0. 880 880 0. 0. 0. 0. 9. 9. 0. 0. 9. 9. 0. 0. 9. 9. 9. 0. 0. 9. 9. 9. 0. 0. 9. 9. 9. 0. 0. 9. 9. 9. 9. 0. 9.				
820 830 C. 0. 0. 840 840 850 O. 0. 0. 850 860 O. 0. 0. 850 860 O. 0. 0. 850 860 O. 0. 0. 0. 850 860 O. 0. 0. 0. 880 870 O. 0. 0. 0. 880 890 O. 0. 0. 0. 0. 9990 900 O. 0. 0. 0. 9990 900 O. 0. 0. 0. 910 920 O. 0. 0. 920 930 940 O. 0. 0. 920 930 940 O. 0. 0. 950 960 O. 0. 950 960 O. 0. 0. 9990 900 O. 900 900 900 900 O. 900 900 900 900 900 900 900 900 900 90				
830 840 0. 0. 0. 840 850 0. 0. 0. 880 0. 0. 0. 0. 880 0. <				
840 850 0. 0. 0. 0. 850 860 0. 0. 0. 880 870 0. 0. 0. 880 890 0. 0. 0. 0. 999 900 0. 0. 0. 999 990 0. 0. 0. 990 910 0. 0. 990 910 0. 0. 990 910 0. 0. 990 910 0. 0. 990 920 930 9. 0. 0. 990 930 9. 0. 0. 990 930 9. 0. 9. 990 990 0. 0. 9. 990 0. 0. 9. 990 0. 0. 9. 99437770-15 9. 99437770-15 100 0. 9. 99437770-15 100 0. 9. 99437770-15 100 0. 9. 99437770-15 100 0. 9. 99437770-15 100				
850 860 0. 0. 0. 0. 880 0. 0. 0. 880 0. <td< td=""><td></td><td></td><td></td><td></td></td<>				
860 870 0. 0. 0. 880 880 0. 0. 0. 880 890 0. 0. 0. 989 990 0. 0. 0. 990 990 0. 0. 0. 990 990 0. 0. 990 990 0. 0. 990 990 0. 0. 990 0. 0. 990 990 0. 0. 990 0. 0. 990 0. 0. 990 0. 0. 0. 990 0. 0. 0. 990 0. <td< td=""><td></td><td></td><td></td><td></td></td<>				
870 880 0. 0				
990 910 0. 0. 0. 910 920 910 0. 0. 920 930 C. 0. 920 930 C. 0. 930 940 0. 950 0. 0. 950 960 0. 960 970 0. 0. 970 980 990 0. 0. 990 990 0. 990 990 0. 990 990	870			
900 910 920 0. 0. 0. 920 930 940 0. 0. 930 940 0. 0. 950 960 0. 0. 950 960 0. 0. 970 980 9. 970 980 990 0. 0. 0. 980 990 0. 0. 0. 990 1000 0. 0. 0. 0. 990 1000 0. 0. 0. 0. 990 1000 0. 0. 0. 990 1000 0. 0. 9. 99437770-15 1030 1040 0. 9. 99437770-15 1050 1060 0. 9. 99437770-15 1050 1060 0. 9. 99437770-15 1050 1060 0. 9. 99437770-15 1060 1070 0. 2. 99831330-14 1070 108C 0. 2. 99831330-14 1090 1100 1100 0. 4. 99718880-14 1100 1110 0. 9. 99437770-15 1120 1130 1. 2062409C 06 7. 99550220-14 1100 1110 0. 9. 99437770-15 1120 1130 1. 2062409C 06 7. 99550220-14 1100 1110 0. 9. 99437770-15 1120 1130 1. 2062409C 06 1. 499718880-14 1110 1120 1. 2062409C 06 1. 499716670-13 1150 1160 2. 4124817C 06 3.89780730-13 1150 1160 2. 4124817C 06 3.89780730-13 1150 1160 1170 4. 9249634C 06 7. 99584C0-13 1140 1150 2. 4124817C 06 5. 39696400-13 1150 1160 1170 4. 9249634C 06 7. 9958350-13 1170 1180 6.0312043C 06 9. 99437770-15 1190 1190 1200 1. 9956168D 07 1. 81897670-12 1200 1210 1. 4474890C 07 2. 43862820-12 1210 1220 1. 929854C 07 3. 24817270-12 1220 1230 2.653729D 07 4.2975824C-12 1220 1230 1260 6.151928D 07 7. 43581700-12 1250 1260 6.151928D 07 9.71453510-12 1250 1260 6.151928D 07 9.71453510-12 1250 1260 6.151928D 07 9.71453510-12 1260 1270 8.0918137C 07 1. 26622899D-11 1260 1270 1280 1.0494295D 08 1.6530813D-11 1280 1290 1.9630522D 03 2.1058154C-11				0.
910 920 930 C. O. O. 930 940 O. O. O. 940 950 O. O. O. 950 960 O. O. O. 950 960 O. O. O. 960 970 O. O. O. 970 980 O. O. O. 970 980 O. O. O. 990 1000 O. O. O. 999437770-15 1030 1040 O. 9. 99437770-15 1030 1040 O. 9. 99437770-15 1050 1060 O. 9. 99437770-15 1050 1060 O. 9. 99437770-15 1060 1070 O. 2. 99831330-14 1070 1080 O. 2. 99831330-14 1080 1090 O. 4. 99718880-14 1070 1100 1. 2062409C O. 7. 99550220-14 1110 1120 1. 2062409C O. 1. 4. 997560220-14 1110 1120 1. 2062409C O. 1. 4. 997560211 1130 1140 1. 2062409C O. 1. 4. 99887550-13 1140 1150 2. 4124817C O. 3. 8978073D-13 1150 1160 2. 4124817C O. 3. 8978073D-13 1150 1160 2. 4124817C O. 3. 8978073D-13 1150 1160 2. 4124817C O. 5. 3969640D-13 1160 1170 4. 9249634D O. 7. 3958395C-13 1170 1180 6. 9312043C O. 9. 99437770-13 1190 1190 8. 442685DD 0. 1. 3592354D-12 1200 1210 1. 929854C O. 7. 3958395C-13 1170 1180 6. 9312043C O. 9. 99437770-13 1190 1190 8. 442685DD 0. 1. 3592354D-12 1200 1210 1. 4474890C O. 2. 4386282D-12 1210 1220 1. 929854C O. 7. 42975824C-12 1200 1210 1. 4474890C O. 7. 42975824C-12 1250 1260 6. 1519283D O. 7. 4358170D-12 1250 1260 6. 1519283D O. 7. 4358170D-12 1250 1260 6. 1519283D O. 9. 71453510D-12 1260 1270 8. 0918137C O. 1. 2622899D-11 1260 1270 8. 0918137C O.				
920 930 940 0. 0. 0. 940 950 0. 0. 950 960 0. 0. 950 960 0. 0. 0. 960 970 0. 0. 0. 970 980 0. 0. 0. 980 990 0. 0. 0. 990 1000 0. 0. 0. 1010 1010				
930 940 950 0. 0. 0. 950 960 0. 0. 950 960 0. 0. 0. 960 970 0. 0. 0. 970 980 0. 0. 0. 980 990 0. 0. 0. 0. 980 990 0. 0. 0. 0. 990 1000 0. 0. 0. 0. 1010 1020 0. 0. 1010 1020 0. 0. 1020 1030 1040 0. 9.99437770-15 1050 1060 0. 9.99437770-15 1050 1060 0. 9.99437770-15 1050 1060 0. 9.99437770-15 1050 1060 0. 9.99437770-15 1060 1070 0. 2.9983133D-14 1070 1080 0. 2.9983133D-14 1080 1090 0. 4.9971888D-14 1100 1110 0. 9.99437770-15 1120 1130 1.2062409C 06 1.99887550-13 1130 1140 1.2062409C 06 1.99887550-13 1140 1150 2.4124817C 06 3.8978073D-13 1150 1160 2.4124817C 06 3.89780735D-13 1150 1160 2.4124817C 06 3.8978073D-13 1150 1160 1170 1170 1170 1170 1170 1170 117				
940 950 960 0. 0. 0. 950 960 970 0. 0. 970 980 0. 0. 0. 980 990 0. 0. 0. 990 1000 0. 0. 0. 0. 990 1000 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.				
950 960 970 0. 0. 0. 970 980 0. 0. 970 980 990 0. 0. 0. 990 1000 0. 0. 0. 0. 1000 1010 0. 0. 0. 1010 1020 0. 0. 1020 1030 0. 9.99437770-15 1030 1040 0. 9.99437770-15 1050 1060 0. 9.99437770-15 1050 1060 0. 9.99437770-15 1050 1060 0. 9.99437770-15 1060 1070 0. 2.99831330-14 1070 1080 0. 2.99831330-14 1070 1080 0. 2.99831330-14 1090 1100 1.2062409C 06 7.99550220-14 1100 1110 0. 9.99437770-13 1120 1130 1.2062409C 06 1.49915670-13 1120 1130 1.2062409C 06 1.99887550-13 1130 1140 1.2062409C 06 1.99887550-13 1130 1140 1.2062409C 06 2.7984258C-13 1140 1150 2.4124817C 06 3.8978073D-13 1150 1160 2.4124817C 06 3.8978073D-13 1150 1190 8.4436860D 06 1.35923540-12 1190 1200 1.9356168D 07 1.8189767D-12 1200 1210 1.4474890C 07 2.4386282D-12 1210 1220 1.9299854C 07 3.24817270-12 1230 1240 3.6187226C 07 5.4668121D-12 1240 1250 4.5837152D 07 7.4358170D-12 1250 1260 6.1519283D 07 9.7145351D-12 1250 1260 6.1519283D 07 9.7145351D-12 1250 1260 6.1519283D 07 9.7145351D-12 1260 1260 1.0494295D 08 1.6330813D-11 1280 1290 1.3630522D 03 2.1058154C-11				
960 970 0. 0. 0. 980 0. 0. 980 990 0. 0. 0. 980 990 0. 0. 0. 0. 0. 990 1000 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.				
970 980 990 0. 0. 0. 0. 990 1000 0. 0. 1070 1010 0. 0. 1010 1020 0. 0. 1020 1030 0. 9.99437770-15 1030 1040 0. 9.99437770-15 1050 1060 0. 9.99437770-15 1050 1060 0. 2.99831330-14 1080 1090 0. 2.99831330-14 1080 1090 0. 2.99831330-14 1100 1110 0. 9.99437770-15 1110 110 1120 1.20624090 06 7.99550220-14 110 1120 1.20624090 06 1.49915670-13 1120 1130 1.20624090 06 1.99887550-13 1140 1150 2.41248170 06 3.89780730-13 1150 1160 2.41248170 06 5.39696400-13 1160 1170 4.92496340 06 7.39583950-13 1170 1180 6.03120430 06 9.99437770-13 1150 1160 2.41248170 06 5.39696400-13 1160 1170 4.92496340 06 7.39583950-13 1170 1180 6.03120430 06 9.99437770-13 1130 1190 8.44368500 06 1.35923540-12 1190 1200 1.98561680 07 1.81897670-12 1190 1200 1.98561680 07 1.81897670-12 1210 1220 1.92998540 07 3.24817270-12 1220 1230 2.65372990 07 4.29758240-12 1230 1240 3.61872260 07 5.46681210-12 1240 1250 4.58371520 07 7.43581700-12 1250 1260 6.15182830 07 9.71453510-12 1250 1260 6.15182830 07 9.71453510-12 1250 1260 6.15182830 07 9.71453510-12 1250 1260 6.15182830 07 9.71453510-12 1250 1260 6.15182830 07 9.71453510-12 1250 1260 1.04942950 08 1.63308130-11 1280 1290 1.36305220 03 2.10581540-11				
980 990 1000 0. 0. 0. 1070 1010 0. 0. 0. 1010 1020 0. 0. 1020 1030 0. 9.99437770-15 1030 1040 0. 9.99437770-15 1050 1060 0. 9.99437770-15 1060 1070 0. 2.99831330-14 1070 1080 0. 2.99831330-14 1080 1090 0. 4.99718880-14 1100 1110 0. 9.99437770-15 1120 1130 1.20624090 06 7.99550220-14 1101 1120 1.20624090 06 1.49915670-13 1120 1130 1.20624090 06 1.99887550-13 1130 1140 1.20624090 06 2.79842580-13 1140 1150 2.41248170 06 3.88780730-13 1150 1160 2.41248170 06 5.39696400-13 1160 1170 4.92496340 06 7.39583950-13 1170 1180 6.03120430 06 9.99437770-13 1190 1190 8.44268500 06 1.35923540-12 1190 1200 1.08561680 07 1.81897670-12 1210 1220 1.9298540 07 3.24817270-12 1220 1230 2.65372990 07 4.29758240-12 1230 1240 3.61872260 07 7.43581700-12 1250 1260 6.15182830 07 9.71453510-12 1250 1260 6.15182830 07 9.71453510-12 1250 1260 6.15182830 07 9.71453510-12 1250 1260 6.15182830 07 9.71453510-12 1250 1260 6.15182830 07 9.71453510-12 1250 1260 1270 8.09181370 07 1.26228890-11 1270 1280 1.04942950 08 1.63308130-11 1280 1290 1.36305220 03 2.10581540-11				
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			1.04942950 08	
1290 1300 1.7611116C 08 2.7014803D-11				
1001 1010 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0				
1300 1310 2.2677328D 08 3.4520581D-11	1300	1310	2.2677328D 08	3.45205810-11

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{0,\Lambda\lambda}$ and Radiance $N_{0,\Lambda\lambda}$. $T = 300^{\circ} K$

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$\lambda_{ exttt{min}}$	$\lambda_{ exttt{max}}$	$Q_{O,\Delta\lambda}$		$N_{O,\Delta\lambda}$
×10 ⁻⁹ m	$\times 10^{-9}$ m	Quanta $s^{-1} m^{-2}$	sr ⁻¹	$W m^{-2} sr^{-1}$
1310	1320		98	4.39452790-11
1320	1330		OB	5.57086610-11
1330	1340		08	7.03604190-11
1240	1350		09	8.85301980-11
1350	1360		08	1.10987560-10
1360	1370		08	1.3864201D-10
1370	1380		09	1.72572920-10
1380	1340		09	2.1408956D-10
1390	1400		09	2.6470109D-10
1400	1410		09	3.2620649D-10
1410	1420		09	4.0072457D-10
1420	1430		09	4.9070396D-10
1430	1440		09	5.9906300D-10
1440	1450		09	7.2915981D-10
1450	1460		09	8.8489221D-10
1460	1470		09	1.07081760-09
1470	1480		09	1.29216310-09
1480	1490		10	1.5549553D-09
1490	1500		10	1.86615020-09
1500	1510		10	2.23371340-09
1510	1520		10	2.6667398D-09
1520	1530		10	3.17565350-09
1530	1540		10	3.77227790-09
1540	1550		10	4.4700854D-09
1550	1560		10	5.2843173D-09
1560	1570		10	6.2322441D-09
1570	1580	5.81371900	10	7.3333546D-09
1580	1590	6.86881790	10	8.6095867D-09
1590	1600	8.0971330D	10	1.0085626D-08
1600	1610	9.52411590	10	1.1789138D-08
1610	1620	1.11783550	11	1.37511340-08
1620	1630	1.30920560	11	1.6006266D-08
1630	1640		11	1.6593140D-08
1640	1650		11	2.1554804D-08
1650	1660		11	2.49390610-08
1660	1670		11	2.87989590-08
1670	.680		11	3.3193227D-08
1680	1690		11	3.8186818D-08
1690	1700		11	4.3851402D-08
1700	1710		11	5.0265933D-08
1710	1720		11	5.7517304D-08
1720	1730		11	6.5700940D-08
1730	1740		11	7.4921463D-08
1740	1750		1 i	8.5293428D-08
1750	1760		11	9.69421050-08
1760	1770		11	1.10004240-07
1770	1780		12	1.24628840-07
1780	1790		12	1.40978200-07
1790 1800	1800		12	1.59228670-07
15.0	1810	1.63144080	12	1.79571650-07

R.K.H. Gebel, Blackbody functions.

Blackbody Quantum Radiance $Q_{O_1, \Delta\lambda}$ and Radiance $N_{O_1, \Delta\lambda}$.

Ť	Ξ	30	0	O	K
		$ \omega$	v		1

$\lambda_{ exttt{min}}$	λ_{max}	Qo, da	$N_{O,\Lambda}$
×10 ^{−9} m	$\times 10^{-9}$ m	Quanta $s^{-1} m^{-2} sr^{-1}$	$W m^{-2} sr^{-1}$
1810	1820	1.84733250 12	2.02214720-07
1820	1830	2.08869650 12	2.27382540-07
1830	1840	2.3581562C 12	2.5531802D-07
1840	1850	2.6585645C 12	2.8628 346 D-0 7
1850	1860	2.9930213C 12	3.2056174D-07
1860	1870	3.3648861C 12	3.5845755D-07
1870	1880	3.7777992D 12	4.0029868D-07
1680	1890	4.235696 7 C 12	4.4643736D-07
1890	1900	4.7428365D 12	4.97251590-07
1900	1910	5.3039060D 12	5.5314661D-07
1910	1920	5.9235557D 12	6.1455635D-07
1920	1930	6.6074171C 12	6.8194493D-07
1930	1940	7.3611210C 12	7.55808250-07
1940	1950	8.1908265D 12	8.3667554D-07
1950	1960	9.1031427D 12	9.25111040-07
1960	1970	1.0105157C 13	1.02171570-06
1970	1980	1.1204455D 13	1.1271288D-06
1980	1990	1.2409161C 13	1.24202990-06
1990	2000	1.37279460 13	1.3671404D-06
2000	2010	1.51700790 13	1.50322580-06

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{O_1,\Delta\lambda}$ and Radiance $N_{O_1,\Delta\lambda}$.

T	_	2	α	10	v
1	-		W) o	r.

$\lambda_{ exttt{min}}$	$\lambda_{ exttt{max}}$	$Q_{O,\Delta\lambda}$	$N_{O,\Delta\lambda}$
×10 ⁻⁹	$m \times 10^{-9} m$	Quanta $s^{-1} m^{-2} sr^{-1}$	$W m^{-2} sr^{-1}$
2000	2100	2.42384580 14	2.34079180-05
2100	2200	5.90971230 14	5.44452970-05
2200	_300	1.32128410 15	1.16366810-04
2300	2400	2.73954430 15	2.31088530-04
400	∠500	5.3174470D 15	4.30361520-04
2500	2630	9.7391427D 15	7.5750456D-04
2600	2700	1.69457090 16	1.26855900-03
2700	2000	2.81722450 16	2.03265770-03
∠800	2900	4.4973228D 16	3.13149880-03
2900	3000	6.92328400 16	4.65791430=03
3000	3200	2.52415180 17	1.61199300-02
3200	400 د	4.9953776D 17	2.9989306D - 02
340C	600د	9.0262535D 17	5.11194280-02
600د	000د	1.51205300 18	8.10392970-02
3800	4000	2.37692190 18	1.20900059-01
4000	+200	3.54064860 18	1.71353070-01
4200	4400	5.03738480 18	2.3250052D - 01
4400	4600	6.88952600 18	3.03911590-01
4600	4800	9.10709420 18	3.86638520-01
4800	5000	1.16867780 19	4.73563430-01
5000	5500	4.27196387 19	1.6117065D CO
5500	6000	6.55394050 19	2.2599066D 00
6000	6500	9.14008690 19	2.90147560 03
6500	7000	1.18567020 20	3.4866541D CO
7000	7500	1.45449560 20	3.9834789D C7
7500	0000	1.70786370 20	4.3766130D CO
8000	a500	1.93693820 20	4.66357490 00
8500	9000	2.13641940 20	4.85049950 00
9000	9500	2.30392610 20	4.9484796D 03
9500	10000	2.43927740 20	4.97082510 00
10000	11000	5.16368687 20	9.77379280 00
11000	12000	5.36834590 20	9.27937280 00
12000	13000	5.4044759D 20 5.3182832D 20	8.5952913D 00 7.8319826D 00
13000	14000 15000		
			7,05954170 00
15000	10000	4.92656739 20	6.3189556D 00

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{0}, \Delta\lambda$ and Radiance $N_{0}, \Delta\lambda$.

$\lambda_{ exttt{min}}$	$\lambda_{ exttt{max}}$	$Q_{O,\Delta\lambda}$	$N_{O,\Delta\lambda}$
$\times 10^{-9}$ m	$\times 10^{-9}$ m	Quanta $s^{-1} m^{-2} sr^{-1}$	$\mathrm{W}\;\mathrm{m}^{-2}\;\mathrm{sr}^{-1}$
600	810	0.	1.2634868C-13
810	820	0.	2.52697350-13
820	830	2.8592376D 06	3.4745886D-13
850	840	2.8592376C 06	6.00156210-13
P40	850	2.85923 76 D 06	8.8444073D-13
950	860	5.7184752D C6	1.42142260-12
860	870	8.57771270 06	2.14792750-12
87 0 980	390 890	1.4296188C 07 2.2873901D 07	3.2850656D-12
490	900	3.4310951C 07	4.9275984D-12 7.3282232D-12
900	910	4.8607039D 07	1.08028120-11
910	920	7.1480939D 07	1.5793584C-11
220	930	1.08651030 08	2.28691100-11
930	940	1.54398830 08	3.2850656D-11
940	950	2.2302053D 08	4.67805970-11
950	960	3.1737537C 08	6.60803580-11
960	970	4.4990030D 08	9.2708341D-11
970	980	6.3475074D 08	1.28970410-10
980	990	8.9350441C 08	1.78246390-10
990	1000	1.2237537D 09	2.4454786D-10
1000	1010	1.6869502D 09	3.33276220-10
1010 1020	1020 1030	2.3045455D 09 3.1337244D 09	4.51191120-10
1030	1040	3.1337244D 09 4.2259531D 09	6.0697904D-10 8.1147437D-10
1040	1050	5.6755866D 09	1.07835440-09
1050	1050	7.5655426D 09	1.42473930-09
1060	1070	1.00330650 10	1.87163450-09
1070	1080	1.32354110 10	2.44528910-09
1000	1090	1.73555720 10	3.17763760-09
1090	1100	2.26423020 10	4.10794290-09
1100	1110	2.93929620 10	5.28380690-09
1110	1120	3.7959238D 10	6.7628761D-09
1120	1130	4.8787171C 10	8.6147054D-09
1130	1140	6.24057190 10	1.0922654D-08
1140	1150	7.94639310 10	1.37863460-08
1150	1160	1.00725220 11 1.27121700 11	1.73242990-08
1160 1170	1170 1180	1.59759900 11	2.1676979D-08 2.7010157D-08
1180	1190	1.99940770 11	3.3518756D-08
1190	1200	2.49225440 11	4.1431184D-08
1200	1210	3.09435270 11	5.10139100-08
1210	1220	3.8272325C 11	6.25771190-08
1220	1230	4.7159979D 11	7.648C054D-08
1230	1240	5.7900705D 11	9.3138021C-08
1240	1250	7.0835038D 11	1.13029160-07
1250	1260	8.6358696C 11	1.36702320-07
1260	1270	1.04928870 12	1.6478568D-07
1270	1290	1.27072240 12	1.9799583D-07
1280	1290	1.53392950 12	2.3714803D-07
1290	1300	1.8458380D 12	2.8316716D-07
1300	1310	2.2143623D 12	3.37099150-07

R.K.H. Gebel. Blackbody functions. Blackbody Quantum Radiance $Q_{0,\Lambda\lambda}$ and Radiance $N_{0,\Lambda\lambda}$

١	1	$Q_{O,\Delta A}$	$N_{O,\Delta\lambda}$
λ_{\min}	λ _{max}		
×10 ⁻⁹ m	$\times 10^{-9}$ m	Quanta $s^{-1} m^{-2} sr^{-1}$	$W m^{-2} sr^{-1}$
1310	1320	2.6484975C 12	4.0012421D-07
1320	1330	3.1584768D 12	4.7357003D-07
1330	1340	3.7559916D 12	5.5892662D-07
1340	1350	4.45391720 12	6.57861700-07
1350	1360	5.267C216D 12	7.72237520-07
1360	1370	6.2120711D 12	9.0412848D-07
1370	1380	7.3075765C 12	1.0558396D-06
1380	1390	8.57434170 12	1.2299268D-06
1390	1400	1.00355980 13	1.42921710-06
1400	1410	1.17172210 13	1.6568311D-06
1410	1420	1.36479620 13	1.91620600-06
1420	1430	1.5859716D 13	2.21111960-06
1430	1440	1.83877770 13	2.54571540-06
1440	1450	2.12711260 13	2.92452920-06
1450	1460	2.4552733C 13	3.35251640-06
1460	1470	2.92798610 13	3.83508010-06
1470 1486	1490 1490	3.25044100 13 3.7283260D 13	4.37810110-06
1490	1500	4.2678627D 13	4.9879677D-06 5.6716075D-06
1500	1510	4.8758464D 13	6.43651950-06
1510	1520	5.5596831C 13	7.29080710-06
1520	1530	6.32743190 13	8.24321230-06
1530	1540	7.1878494D 13	9.30315010-06
1540	1550	8.15043C6C 13	1.04807440-05
1550	1560	9.2254596D 13	1.17868630-05
1560	1570	1.04240520 14	1.3233156C-05
1570	1580	1.17582100 14	1.48320910-05
1580	1590	1.3240866C 14	1.65969920-05
1590	1600	1.48859400 14	1.85420770-05
1600	1510	1.6708393C 14	2.0682496D-05
1610	1620	1.8724276D 14	2.3034368D-05
1620	1630	2.09507910 14	2.56148220-05
1630	1640	2.3406350D 14	2.84420360-05
1640	1650	2.6110625C 14	3.15352720-05
1650	1660	2.90846160 14	3.4914915D-05
1660	1670	3.2350704C 14	3.8602514D-05
1670	1680	3.5932718D 14	4.26208170-05
1680	1690	3.9855993D 14	4.69938090-05
1690	1700	4.4147431C 14	5.1746748D-05
1700	1710	4.88355710 14	5.6906203D-05
1710	1720	5.3950644C 14	6.2500086D-05
1720	1730	5.95246420 14	6.85576900-05
1730	1740	6.5591380D 14	7.51097190-05
1740	1750	7.2186560C 14	8.21883230-05
1750	1760	7.9347838C 14	8.98271300-05
1760	1770	8.7114882D 14	9.80612750-05
1770 1780	1780 1790	9.55294430 14 1.94635410 15	1.06927430-04
1790	1800	1.1447889D 15	1.1646382D-94 1.2671027D-04
1800	1810	1.2510825C 15	1.3770823D-04
1000	1010	************	T = 2

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{O_1,\Delta\lambda}$ and Radiance $N_{O_1,\Delta\lambda}$.

$\lambda_{ exttt{min}}$	$\lambda_{ exttt{max}}$	Qo, Δλ	$N_{O,\Delta\lambda}$
$\times 10^{-9}$ m	$\times 10^{-9}$ m	Quanta s^{-1} m^{-2} sr^{-1}	$\mathrm{W}~\mathrm{m}^{-2}~\mathrm{sr}^{-1}$
1810	1820	1.36574170 15	1.49500770-04
1820	1330	1.48929760 15	1.6213262D-04
1830	1840	1.62230550 15	1.75650200-04
1340	1850	1.76534590 15	1.90101610-04
1850	1860	1.9190250D 15	2.05536680-04
1960	1870	2.0839 7 51C 15	2.22006950-04
1870	1880	2.2608554D 15	2.39565720-04
1880	1890	2.4503526D 15	2.58268020-04
1890	1900	2.6531808C 15	2.78170650-04
1990	1910	2.87008290 15	2.99332160-04
1910	1920	3.1 01830 3 0 15	3.21812870-04
1920	1930	3.3492237C 15	3.45674880-04
1930	1940	3.6130938D 15	3.7098205D-04
1940	1950	3.89430120 15	3.97800000-04
1950	1960	4.1937370C 15	4.26196130-04
1950	1970	4.5123234D 15	4.5623957D-04
197C	1940	4.85101360 15	4.86061200-04
1920	1990	5.2107927D 15	5.21553660-04
1990	2000	5.5926775D 15	5.56971260-04
2000	2010	5.9977170D 15	5.94330070-04

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{O_1,\Delta\lambda}$ and Radiance $N_{O_1,\Delta\lambda}$.

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λ_{\min}	λ_{max}	Qo, ΔA	$N_{\mathcal{O},\Delta\lambda}$
×10 ⁻⁹	$m \times 10^{-9} m$	Quanta s^{-1} m^{-2} sr^{-1}	$\mathrm{W~m}^{-2}~\mathrm{sr}^{-1}$
2000	2100	8.25857150 16	7.98451300-03
2100	2200	1.53899680 17	1.41923910-02
200	2300	2.69240050 17	2.37325480=02
2300	2400	4.45888430 17	3.76403930-02
2400	2500	7.03913170 17	5.7008488D-02
2500	2600	1.0655209D 18	8.2924823D-02
2600	2700	1.55421180 18	1.1641034D-C1
2700	2800	2.19382170 18	1.58361890-01
2800	۷900	3.0075360D 18	2.0950524D-01
2900	3000	4.01695320 18	2.70360920-01
3000	3200	1.1937800D 19	7.6338100D-01
3200	5400	1.87414900 19	1.12635920 00
3430	600 ذ	2.75719770 19	1.5629529D 00
600د	800 د	3.84386720 19	2.0617510D 00
380C	4000	5.1232402D 19	2.5076334D 0J
4000	420C	6.57461020 19	3.1836790D 00
4200	4400	8.17015450 19	3.77282100 00
4400	4500	9.87770370 19	4.3591036D 00
4500	4 900	1.1663258D 20	4.9285152D 00
4800	5000	1.3493127D 20	5.4694406D 00
5000	5500	4.1749845D 20	1.5778046D 01
5500	5000	5.2665580D 20	1.8183577D 01
6000	6500	6.2304418D 20	1.9798251D 01
6500	7300	7.02632160 20	2.0678595D 01
7000	7500	7.64175180 20	2.0942229D 01
7500	5000	8.08293350 20	2.0724401D 01
0000	3500	8.3667770D 20	2.0153448D 01
8500	9000	3.5151076D 20	1.93395630 01
4000	9500	8.5508854D 20	1.8371555D 01
9500	10000	8.49598280 20	1.73177890 01
10000	11000	1.65500689 21	3.1370298D 01
11000	12000	1.56923620 21	2.7141314D 01
12000	13000	1.46331980 21	2.3283518D 01
13000	14000	1.35052670 21	1.98957910 01
14000	15000	1.2388361D 21	1.6983723D 01
15000	15300	1.1310196D 21	1.45101440 01

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{O,\Delta\lambda}$ and Radiance $N_{O,\Delta\lambda}$.

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$\lambda_{ exttt{min}}$	λ	Qo, Ax	No. 43
×10 ⁻⁹ m	λ _{max} ×10 ⁻⁹ m	Quanta $s^{-1} m^{-2} sr^{-1}$	$N_{O,\Delta\lambda}$ W m ⁻² sr ⁻¹
300	310	0.	0.
310	320	0.	0.
320	330	0.	0.
330	340	o.	0.
340	350	0.	0.
350 360	360	0.	0.
360 3 7 0	370 380	0.	0. 0.
380	390	0. 0.	0.
390	400	0.	0.
400	410	0.	0.
410	420	0.	o.
420	430	0.	0.
430	440	0.	0.
440	450	0.	0.
450	460	0.	0.
460	470	0.	0.
470	480	0.	0.
480	490	o.	0.
490	500	0.	0.
500	510	0.	0.
510	520	0.	0.
520	530	0.	0.
530	540	n •	0.
540	550	0.	0.
550	560	0.	0.
560	570	0.	0.
570	580	2.	0.
580	590	0.	0.
590	600	9.	0.
600	610	0.	0.
610	620	0.	7.71171120-14
620 630	630 640	0.	1.5423422D-13 2.31351340-13
640	650	0. 0.	4.62702670-13
650	660	5.5844484D 06	9.4828823D-13
660	670	0.	1.46522510-12
670	680	1.1168897D 27	2.62198180-12
680	690	1.67533450 07	4.54990960-12
690	700	2.79222420 07	7.7888283D-12
700	710	4.4675587D 07	1.29556750-11
710	720	7.81822770 07	2.1361440D-11
720	730	1.2285786D 08	3.4702700D-11
730	740	2.06624590 08	5.56014380-11
740	750	3.2948246D 08	8.7836390D-11
750	760	5.2493815D 08	1.37037110-10
760	770	8.0974502D 03	2.11069530-10
770	780	1.25650090 09	3.21192770-10
780	790	1.9098814D 09	4.83292940-10
790	80C	2.8759909D 39	7.1919418D-10

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$.

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$\lambda_{ exttt{min}}$	$\lambda_{ exttt{max}}$	Q _{O,Δλ}	$N_{O,\Delta\lambda}$
×10 ⁻⁹ m	- - 0	Quanta s^{-1} m^{-2} sr^{-1}	$W m^{-2} sr^{-1}$
800	810	4.2944408D 09	1.05881790-09
810	820	6.3327645D 09	1.54303630-09
820	830	9.2478465D 09	2.2266024D-09
830	840	1.3380338D 10	3.18246900-09
840	850	1.91714110 10	4.50749520-09
830	960	2.72409390 10	6.32799880-09
860	870	3.8359576D 10	8.80847070-09
870	380	5.35716130 19	1.21508290-08
668	890	7.42173190 10	1.66566790-08
890	900	1.0201670D 11 1.3918121D 11	2.2640659D-08 3.0547630D-08
900 910	910 920	1.89508640 11	4.0922581D-08
920	930	2.5352837D 11	5.44439100-08
930	940	3.38680040 11	7.19505740-08
940	950	4.4944758D 11	9.44741690-08
950	960	5.9266634D 11	1.23275330-07
960	970	7.7672417D 11	1.59855980-07
570	980	1.01187970 12	2.06157480-07
980	990	1.31063090 12	2.64315200-07
990	100C	1.68810060 12	3.37019900-07
1000	1010	2.1624995D 12	4.2743802D-07
1010	1920	2.7556628D 12	5.39318830-07
1020	1030	3.49361970 12	6.77030300-07
1030	1040	4.4072913D 12	8.4590654D-07
1040	1050	5.5332167D 12	1.05185160-06
1050	1060	6.9143904D 12	1.30195730-05
1060	1070	8.6012009D 12	1.60437920-06
1070	1 280	1.0652453D 13	1.96852500-06
1080	1090	1.31365160 13	2.40520480-06
1090	1100	1.61325330 13	2.92679320-06
1120	1110	1.97318330 13	3.54740320-06
1110	1120	2.40393690 13	4.2830730D-06 5.1519660D-06
1120	1130	2.9175387D 13 3.5277095D 13	6.1745824D-06
1130	1140 1150	4.2500640D 13	7.37398430-06
1140 1150	1160	5.1023055D 13	8.7760333D-06
1160	1170	6.1044482D 13	1.04096400-05
1170	1180	7.2790442D 13	1.23070280-05
. 180	1190	8.6514358D 13	i.4504004D-05
1190	1200	1.0250012D 14	1.70402470-05
1200	1210	1.2106489D 14	1.99596030-05
1210	1220	1.42562040 14	2.3310392D-05
1220	1230	1.6738413D 14	2.71457220-05
1230	1240	1.95966300 14	3.15238170-05
1240	1250	2.2878947D 14	3.65083470-05
1250	1260	2.6638397D 14	4.2168771D-05
1260	1270	3.09333!40 14	4.85806770-05
1270	1280	3.5827716D 14	5.58261400-05
1280	1290	4.13916950 14	6.39940700-05
1290	1 300	4.77018220 14	7.31805730-05
1300	1310	5.4841563D 14	8.34893050-05

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$. $T = 500 ^{\circ} K$

λ.	λ	Qo, Al	$N_{O,\Delta\lambda}$
λmin	λmax		
$\times 10^{-9}$ m	$\times 10^{-9}$ m	Quanta s ⁻¹ m ⁻² sr	$W m^{-2} sr^{-1}$
1310	1320	6.2901708D 1	4 9.5031837D-05
1320	1330	7.1980808D 1	
1330	1340	8.21856180 1	4 1.22306270-04
1340	1350	9.36315550 1	4 1.3830406D-04
1350	1360	1.06443160 1	5 1.56068120-04
1360	1370	1.20754550 1	5 1.75754870-04
1370	1380	1.36709920 1	
1380	1390	1.5446398D 1	5 2.2157230D-04
1390	1400	1.74182490 1	
1400	1410	1.96042640 1	5 2.7721301D-04
1410	1420	2.20233650 1	5 3.09219790-04
1420	1430	2.46957130 1	5 3.44308220-04
1430	1440	2.76427650 1	5 3.82710940-04
1440	1450	3.0887311D 1	5 4.24672530-04
1450	1460	3.44535310 1	5 4.70449750-04
1460	1470	3.93670290 1	5 - 20311740-04
1470	1480	4.2654888D 1	5 5.74540190-04
1480	1490	4.73457050 1	5 6.33429530-04
1490	1500	5.2469638D 1	5 6.97287000-04
1500	1510	5.8058446D 1	7.66432840-04
1510	1520	6.4145526D 1	5 8.41200320-04
1520	1530	7.0765955D 1	9.21935850-04
1530	1540	7.79565230 !	5 1.008/9900-03
1540	1550	8.5755770D 1	5 1.10276250-03
1550	1560	9.42040160 1	5 1.2036122D-03
1560	1570	1.03343390 1	6 1.31194720-03
1570	1580	1.13217870 1	6 1.4281795 D-03
1580	1590	1.2387328D 1	6 1. 5527344D-03
1590	1600	1.3535735D 1	
1600	1610	1.47719720 1	6 1.82857610-03
1610	1620	1.61011950 1	6 1.9 807769D-03
1620	1630	1.7528755D 1	
1630	1640	1.90601990 1	
1640	1650	2.07012710 10	6 2.50024270-03
1650	1660	2.2457912D 10	
1660	167C	2.4336262D 1	
1670	1680	2.6342658D 10	
1680	1690	2.8483638D 19	
1690	1700	3.07659360 10	
1700	1710	3.3196484D 16	
1710	1720	3.5782409D 16	
1720	1730	3.8531037D 16	4.43787580-03
1730	1740	4.1449883D 16	
1740	1750	4.4546658D 16	
1750	1760	4.7829260D 16	
1767	1770	5.13057760 16	
1770	1780	5.4984476D 16	
1790	179C	5.88738150 16	
1790	1800	6.29824230 16	
1800	1810	6.73191080 16	7.40997510-03

R.K.H. Gebel, Blackbody functions.

Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$.

T = 500°K

$\lambda_{ exttt{min}}$	$\lambda_{ exttt{max}}$	Qo, Δλ	$N_{O,\Delta\lambda}$
×10 ⁻⁹ m	$\times 10^{-9}$ m	Quanta $s^{-1} m^{-2} sr^{-1}$	$W m^{-2} sr^{-1}$
1810	1820	1.1892847D 16	7.86982160-03
1820	1830	7.6712786D 16	8.35143190-03
1930	1840	8.17882330 16	8.8554581D-03
1840	1850	8.7128655D 16	9.38255530-03
1850	1860	9.2743674D 16	9.93338C8D-03
1860	1870	9.96430590 16	1.05085940-02
1870	1880	1.0483672D 17	1.1108854D-02
1880	1890	1.1133472D 17	1.1734824D-02
1890	1900	1.1814724D 17	1.23871630-02
1900	191C	1.25284580 17	1.30665310-02
1910	1920	1.3275718D 17	1.37735890-02
1920	193C	1.405756CD 17	1.4508992D-02
1930	1940	1.48750470 17	1.52733960-02
1940	1950	1.57292580 17	1.60674520-02
1950	1960	1.66212750 17	1.68918080-02
1960	1970	1.75521950 17	1.77471090-02
1970	1980	1.852312CD 17	1.8633992D-02
1980	1990	1.95351580 17	1.95530930-02
1990	200C	2.0589428D 17	2.05050380-02
2000	2010	2.16870520 17	2.14904490-02

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance Q_{0,Λ^1} and Radiance N_{0,Λ^1} .

T = 500°K

λ_{\min}	λ _{max}	Qo, AA	-,	$N_{O,\Delta\lambda}$	
$\times 10^{-9}$ m	$\times 10^{-9}$ m	Quanta $s^{-1} m^{-2}$	sr^{-1}	$W m^{-2} sr^{-1}$	
2000	2100		18	2.65067370-	01
2100	2230	4.34291080	18	4.00734440-	01
2200	2300	6.55513140	18	5.79111720-	01
2300	_400	9.4333522D	18	8.00918550-	01
2400	2500	1.32219400	19	1.07125070	00
2500	2600	1.78474170	19	1.38948490	00
2600	2700	2.34147420	19	1.7543240D	00
2700	2300	2.99552720	19	2.16295350	00
2800	2900	3.74752780	19	2.61127420	00
2900	3000	4.59618110	19	3.09417810	07
3000	3200	1.21033367	20	7.7458255D	0.0
3200	400 د	1.65285530	20	9.94019500	0.0
3400	3600	2.14880370	20	1.21875370	01
3600	3800	2.68262540	20	1.43956830	01
3800	4000		20	1.6488204D	01
4000	4200		20	1.84072370	01
4200	4400		20	2.0113384D	01
4400	4600		2 0	2.1583843D	01
4600	4800		20	2.28096560	01
4800	5000		20	2.37927060	01
5000	5500		21	6.22929390	01
5500	0000		21	6.39632670	01
6000	6500		21	6.30554210	01
6500	7000		21	5.0628246D	21
7000	7500		21	5.7206250D	01
7500	8000		21	5.3257436D	01
9000	ა 500		21		01
ყ 500	9000		21		01
9000	9500		21		01
9500	1)000		21		01
10000	11000		21		01
11000	2000		21	5.2896762D	01
12000	15000		21		01
13000	14000		21		01
14000	15000		21		01
15000	15000	1.92338670	21	2.4678824D	ΟĮ

R.K.H. Gebel. Blackbody functions. Blackbody Quantum Radiance $Q_{0},_{\Delta\lambda}$ and Radiance $N_{0},_{\Delta\lambda}$.

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$\lambda_{ exttt{min}}$	$\lambda_{ exttt{max}}$	$Q_{O,\Delta\lambda}$	$N_{O,\Delta\lambda}$
×10 ⁻⁹ m	×10 ⁻⁹ m	Quanta $s^{-1} m^{-2} sr^{-1}$	$W m^{-2} sr^{-1}$
301	310	0.	1.23387380-12
310	320	0.	6.16936890-12
320	330	4.4675587D 07	2.09758540-11
330	340	8.9351174D 07	6.53953110-11
340	350	3.5740470D 08	1.97419810-10
350	360	9.82862920 08	5.49073840-10
360	370	2.63585960 09	1.44486620-09
370	380	6.8353648D C9	3.59797600-09
380	390	1.65299670 10	8.51619690-09
390	400	3.9286978D 10	1.92397940-08
400	410	8.50176420 10	4.1629668D-08
410	420	1.81025480 11	8.6545141D-08
420	43C	3.7129880D 11	1.73367900-07
430	440	7.35449520 11	3.35508790-07
440	450	1.4098722D 12	6.28757410-07
450	46 C	2.6215198D 12	1.1435234D-76
460	470	4.73766730 12	2.02231170-06
470	48C	8.33691130 12	3.48399190-06
480	49C	1.43088310 13	5.8566955D-06
490	500	2.3989852D 13	9.62136160-06
500	510	3.9345298D 13	1.5468110D-05
510	520	6.32072890 13	2.43677890-05
520	530	9.95808560 13	3.76609440-05
530	540	1.54029230 14	5.7166467D-05
540	550	2.34152390 14	8.5311968D-05
550	560	3.50169620 14	1.25287620-04
560	570	5.15619850 14	1.81224770-04
570	58C	7.48189560 14	2.5840028D-04
580	590	1.07067940 15	3.6346670D-04
590	500	1.51211580 15	5.0470802D-04
600	610	2.10901550 15	6.92319930-04
610	620	2.90680350 15	9.38712620-04
620	630	3.9613876D 15	1.25883390-03
630	64C	5.34088240 15	1.67050910-03
640	650	7.12748130 15	2.19479430-03
650	660	9.41946170 15	2.8563383D-03
660	670	1.23333140 16	3.68374830-03
670	68C	1.60059770 16	4.7099549D-03
680	690	2.05971570 16	5.97256910-03
690	700	2.6291718D 16 3.3302103D 16	7.5142286D-03 9.3829248D-03
700	710		1.16323070-02
710	720 730	4.18707820 16 5.22726730 16	
720 730	73C	5.2272673D 16 6.4817534D 16	1.4321956D-02 1.7517631D-02
740	740 750	7.9852275D 16	2.1291464D-02
740 750	76C	9.77631770 16	2.12914640-02
760	770	1.1897798D 17	3.08949570-02
770	780	1.43967830 17	3.6901994D-02
780	790	1.7324900D 17	4.38420270-02
			5.1820544D-02
790	800	2.07384501 17	3.10503440-05

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{0}, \Delta\lambda$ and Radiance $N_{0}, \Delta\lambda$.

T = 1000°K

		1 - 1000 K	
$\lambda_{ exttt{min}}$	$\lambda_{ exttt{max}}$	Qo, Δλ	$N_{O,\Delta\lambda}$
×10 ⁻⁹	10-9	n Quanta $s^{-1} m^{-2} sr^{-1}$	$ m W~m^{-2}~sr^{-1}$
800	810	2.4698533D 17	6.09496470-02
810	820	2.9271164D 17	7.1347906D-02
820	830	3.452/3470 17	8.31401700-02
£30	840	4.0543136D 17	9.64573150-02
840	850	4.7399660D 17	1.11435960-01
850	960	5.51831140 17	1.28218090-01
860	870	6.3984736D 17	1.46950740-01
870	380	7.3900734D 17	1.6778548D-01
880	890	8.5032202D 17	1.90878020-01
890	900	9.7484991D 17	2.16387640-01
900	910	1.1136956D 18	2.44476750-01
910	920	1.2680081D 18	2.75310240-01
920	930	1.43897860 18	3.09054980-01
930	940	1.6278383D 19	3.45879170-01
940	950	1.8358557D 18	3.85951790-01
950	960	2.06433410 18	4.29441920-01
967	970	2.3146086D 18	4.76518200-01
570	98C	2.5880426D 18	5.27348160-01
980	99C	2.8860252D 18	5.82097610-01
990	1000	3.2099669D 18	6.40930090-01
1000	1010	3.5612968D 19	7.04006220-01
1010	1020	3.94145850 18	7.71483160-01
1020	1030	4.35190650 18	8.43514050-01
1030	1640	4.7941024D 18	9.2024749D-C1
1040	1050	5.2695110D 18	1.00182700 00
1050	1060	5.7795969D 18	1.08839060 00
1060	1070	6.3258199D 18	1.18007010 00
1070	108C	6.90963170 18	1.27699130 00
1080	109C	7.5324723D 18	1.37927280 00
1090	1100	9.1457658D 18	1.4870262D CC
1100	1110	3.9009171D 18	1.60035550 00
1110	1120	9.5493082D 18	1.7193570D 00
1120	1130	1.0442295D 19	1.84411890 00
1130	1140	1.1281203D 19	1.9747211D 00
1140	1150	1.21673270 19	2.11123500 00
1150	1160	1.3101924D 19	2.2537235D OC
1160	1170	1.4086213D 19	2.40224050 00
1170	1180	1.51213700 19	2.55683120 00
1180	1190	1.6208531D 19	2.71753190 00
1190	1500	1.734878CD 19	2.88436990 00
1200	1210	1.85431560 19	3.0573635D 00
1210	1220	1.97926470 19	3.2365222D 00
1220	1230	2.1098187D 19	3.421.8466D DO
1230	1240	2.2460655D 19	3.6193284D 00
1240	1250	2.388C875D 19	3.8109507D 00
1250	1260	2.53596140 19	4.01468810 00
1260	1270	2.6397578D 19	4.2245067D CO
1270	1280	2.84954170 19	4.4403643D 00
1280	1290	3.0153718D 19	4.6622109D 00
1290	1300	3.1973006D 19	4.8899884D 00

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{O,\Delta\lambda}$ and Radiance $N_{O,\Delta\lambda}$.

T	=	٦	Λ	Λ	⋂	0	K

$\lambda_{ exttt{min}}$	$\lambda_{ exttt{max}}$	Q_{O} , $\Delta\lambda$	$N_{O,\Delta\lambda}$
×10 ⁻⁹ m	×10 ⁻⁹ m	Quanta $s^{-1} m^{-2} sr^{-1}$	$W m^{-2} sr^{-1}$
1300	1310	3.3653746D 19	5.12363110 00
1310	1320	3.54963400 19	5.3630661D 00
1320	1330	3.74011290 19	5.60821310 00
1330	1340	3.93683890 19	5.85898520 00
1340	1350	4.1398336D 19	6.1152886D 00
1350	1360	4.34911220 19	6.37702320 00
1369	1370	4.5646839D 19	6.6440831D 00
1370	1380	4.78655170 19	6.91635630 00
1380 1390	1390 1400	5.01471250 19	7.19372550 00
1400	1410	5.2491573D 19 5.4848710D 19	7.4760682D 00 7.7632570D 00
1410	1420	5.48 48710D 19 5.7368328D 19	7.7632570D 00 8.0551599D 00
1420	1430	5.99001610 19	8.35164070 00
1430	1440	6.24.93889D 19	8.65255910 00
1440	1450	6.51491350 19	8.95777130 00
1450	1460	6.7865469D 19	9.26713010 00
1460	1470	7.06424080 19	9.5804850D 00
1470	1480	7.34 794180 19	9.8976829D 00
1483	1490	7.63759180 19	1.02185680 01
1490	1500	7.9331276D 19	1.05429830 01
1500	1510	9.23448140 19	1.0870768D 01
1510	1520	8.5415811D 19	1.12017610 01
1520	1530	8.8543500D 19	1.15357990 01
1530	1540	9.17270750 19	1.18727190 01
1540	1550	9.4965688D 19	1.2212356D C1
1550	1560	9.82584550 19	1.25545440 01
1560	1570	1.01604450 20	1.28991160 01
1570	1580	1.05002720 20	1.3245908D 01
1580	159C	1.0845228D 20	1.35947520 01
1590	1600	1.11952100 20	1.39454840 01
1600	1610	1.1550113D 20	1.42979370 01
1610	1620	1.1909830D 20	1.46519470 01
1620	1630	1.2274249D 20	1.50073510 01
1630	1540	1.2643258D 20	1.5363984D 01
1640	1650	1.30167410 20	1.5721686D 01
1650	1660	1.3394581D 20	1.60802950 01
1660	1670	1.377666CD 20	1.64396550 01
1670	168C	1.4162854D 20	1.67996060 01
1680	1690	1.4553042D 20	1.71599940 01
1690	1700	1.494710CD 20	1.75206650 01
1700	1710	1.5344901D 20	1.78814690 01
1710	1720	1.5746319D 20	1.82422550 01
1720	1730	1.5151226D 20	1.86028760 01
1730	1740	1.6559494D 20	1.89631890 01
1740	1750	1.6970992D 20	1.9323050D 01
1750	1760	1.73855900 20	1.96823210 01
1760	1770	1.78031590 20	2.0040864D 01
1770 1780	1780 1790	1.8223566D 20 1.8646681D 20	2.03985450 01
1790			2.07552320 01
1170	1900	1.90723730 20	2.11107970 01

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{0},_{\Delta\lambda}$ and Radiance $N_{0},_{\Delta\lambda}$.

T = 1000°K

$\lambda_{ exttt{min}}$	$\lambda_{ exttt{max}}$	Qo, Δλ	$N_{O,\Delta\lambda}$
$\times 10^{-9}$ m	$\times 10^{-9}$ m	Quanta $s^{-1} m^{-2} sr^{-1}$	$\mathrm{W}~\mathrm{m}^{-2}~\mathrm{sr}^{-1}$
1820	1810	1.95005090 20	2.1465114D 01
1810	1820	1.9930960D 20	2.1813060D 01
1820	1830	2.0363593D 20	2.2169514D 01
1830	1840	2.0798279D 20	2.2519360D 01
1840	1850	2.1234888D 20	2.2867484D 01
1850	1860	2.1673288D 20	2.32137740 01
1860	1870	2.2113353D 20	2.3558123D Cl
1870	1880	2.2554953D 20	2.3900426D 01
1880	1890	2.299 7 96CD 20	2.42405820 01
1890	1900	2.3442250D 20	2.45784910 01
1900	1910	2.3887694D 20	2.49140570 01
1910	1920	2.4334171D 20	2.5247190D 01
1920	1930	2.4781555D 20	2.5577798D 01
1930	1940	2.52297240 20	2.5905796D 01
1940	1950	2.5678559D 20	2.6231100D 01
1950	1960	2.6127938D 20	2.6553630D 01
1960	1970	2.6577744D 20	2.6873309D 01
1970	1980	2.7027861D 20	2.71900620 01
1980	1090	2.7478172D 20	2.75038190 01
1990	2000	2.7928563D 20	2.7814511D 01
2000	2010	2.8378923D 20	2.8122073D 01

r.K.H. Gebel. Blackbody functions.

Blackbody Quantum Radiance $Q_{O_{\bullet}, \Lambda\lambda}$ and Radiance $N_{O_{\bullet}, \Lambda^{\lambda}}$.

T = 1000°K

λ_{\min}	$\lambda_{\mathtt{max}}$	Q0,24	,	No.A.	
×10 ^{−9} m	m ×10 ⁻⁹ m	Quanta $\mathrm{s}^{-1}~\mathrm{m}^{-2}$	sr ⁻¹	$\mathrm{W}~\mathrm{m}^{-2}~\mathrm{sr}^{-1}$	
2000	2100	3.03996820	4 l	2. 34515790	02
2100	2200	3.48344511)	21	3.2161-140	02
2200	2300	3.91168620	21	3.45341490	02
2300	2400	4.31731060	21	3.6495449D	02
2400	2500	4.69478600	21	3.80683300	02
2500	2600	5.04027930	21	3.9268587D	02
2600	2700	5.35144430	21	4.01207920	02
2700	2800	5.62718320	21	4.0654969D	02
2800	_ 400	5.86740970	21	4.09039900	02
2900	7000	6.07292750	21	4.09015920	02
0000	200د	1.26295840	22	9.09546920	0.2
3200	3400	1.30730897	22	7.97244060	02
3400	3600	1.33048560	22	7.5545169D	02
3600	3800	1.33607587	22	7.17638870	02
3800	4000	1.32749730	22	6.7647512D	02
4000	4200	1.30781910	22	6.33943520	02
4200	4400	1.27969150	22	5.9145875D	02
4400	4600	1.24533960	22	5.4999931D	Û 2
4600	4800	1.20659200	22	5.1020827D	02
4800	5000	1.15472495	22	4.7248071D	02
5000	5500	2.726:77:00	22	1.03128950	C 3
5500	000u	2.44583350	22	8.46348200	02
6000	o500	2.1840767D	22	6.9521832D	0.2
6500	7000	1.94423250	22	5.7236070D	02
7000	7500	1.72917180	22	4.7439677D	0.5
7503	ಕ೦೦೦	1.53870930	22	3.9486119D	02
8000	3500	1.37118990	22	3.3051805N	02
8500	3000	1.22435930	22	2.7823944D	C 2
9000	950C	1.09592560	22	2.3555251D	02
9500	10000	9.83239980	21	2.0051118D	02
10000	11000	1.6826983D	22	3. 19171090	02
11000	12000	1.37647410	22	2.3830162D	02
12000	13000	1.13771840	22	1.8115946D	02
13000	14000	9.49632950	21	1.39978390	02
14000	15000	7.99902290	21	1.09755460	02
15000	15000	6.7948315D	21	9 . 72040960	01

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{O\,,\Lambda\lambda}$ and Radiance $N_{O\,,\Lambda\lambda}$.

T = 1500°K

$\lambda_{ exttt{min}}$	max	$Q_{O,\Delta\lambda}$	$N_{O,\Delta\lambda}$
×10 ⁻⁹ m	-10 ⁻⁹ m	Quanta $s^{-1} m^{-2} sr^{-1}$	$W m^{-2} sr^{-1}$
300	310	1.56928920 13	1.01990440-05
310	320	3.72814370 13	2.34657060-05
320	330	8.3679340D 13	5.10590520-05
330	340	1.79369100 14	1.05605920-04
340	350	3.6272145D 14	2.08561920-04
350	360	7.0653718D 14	3.9486378D-04
360 370	370	1.32302380 15	7.19231500-04
380	380	2.38928000 15 4.1733408D 15	1.26437930-03
390	390 400		2.15133230-03
400	410		3.55195360-03
410	420		5.70367310-03
420	430		8.92627570-03
430	440		1.36404720-02
440	450		2.03878390-02
450	460	6.6905455D 16 9.8255057D 16	2.9851605D-02 4.2877649D-02
460	470	1.4166606D 17	
470	480	2.0077698D 17	6.0495036D-02
480	490	2.8001125D 17	8.3935355D-02 1.1465016D-01
490	500	3.8466963D 17	1.54325790-01
500	510	5.2101880D 17	2.04895090-01
510	520	6.9637404D 17	2.68545260-01
520	530	9.1917324D 17	3.47721740-01
530	540	1.1990403D 18	4.45127610-01
540	550	1.5468361D 18	5.6371843D-01
550	560	1.97469450 18	7.06692610-01
560	570	2.49604360 18	8.77477200-01
570	580	3.1256099D 18	1.07970960 00
580	590	3.8794057D 18	1.31721510 00
590	600	4.7746993D 18	1.59398130 00
600	61C	5.8299680D 13	1.91412950 00
610	620	7.0648352D 18	2.28188290 00
620	630	8.49999170 18	2.7015340D 00
630	540	1.01571030 19	3.1774099D CO
649	650	1.20587030 19	3.7138370D 00
650	660	1.4228079D 19	4.31510560 00
660	670	1.66891420 19	4.9854349D 00
670	680	1.94662950 19	5.7289386D CO
680	590	2.25842910 19	6.54959190 00
690	700	2.60680390 19	7.45120010 00
700	710	2.9942708D 19	8.4373698D 00
710	72C	3.4233080D 19	9.5114810D 00
720	730	3.8963903D 19	1.06766630 01
730	740	4.4159496D 19	1.19357750 01
740	750	4.98436630 19	1.32913810 01
750	760	5.60395590 19	1.47457410 01
76C	770	6.27695570 19	1.63007950 01
770	780	7.00551350 19	1.79581500 01
780	790	7.79167600 19	1.97190780 01
790	8C O	8.63737880 19	2.15845080 01

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$.

Т	=	٦	5	U	n	0	K

$\lambda_{ exttt{min}}$	$\lambda_{ exttt{max}}$	$Q_{O,\Delta\lambda}$	$N_{O,\Delta\lambda}$
×10 ⁻⁹ n	-10 ⁻⁹ m	Quanta $s^{-1} m^{-2}$	
800	810		2.35550240 01
810	820		20 2.5630870D 01
820	830		20 2.7811948D 01
A30	840		3.00978240 01
840	850		3.24877380 01
850	460		3.49806140 01
860	870	1.63597820 2	3.75750630 01
870	880		4.02694070 01
880	890		4.3061682D 01
890	900		4.5949658D 01
900	910		4.8930853D 01
910	920		5.20025510 01
920	930		5.51618140 01
930	940		5.8405505D 01
940 950	950		6.1730300D 01
960	960 970		6.5132709D 01 6.8609092D 01
970	980		7.2155677D 01
980	990		7.57685750 01
990	1000		7.94437990 01
1000	1010		8.3177280D 01
1013	1020		0 8.6964881D 01
1020	1030		9.08024150 01
1030	1040		9.46856560 01
1040	1050	5.18662580 2	9.86103570 01
1050	1060	5.4466309D 2	1.0257226D 02
1060	1070		1.06567120 02
1070	1080		1.10596690 02
1080	1090		1.1463876D 02
1090	1100		0 1.18707160 02
1100	1110		1.2279176D 02
1110	1120		1.2688849D 02
1120 1130	113C 1140		1.3099336D 02 0 1.3510242D 02
1140	1150		0 1.3510242D 02 0 1.3921182D 02
1150	1160		1.4331780D 02
1160	1170		0 1.4741668D 02
1170	1180		0 1.5150489D C2
1180	1190		0 1.5557894D C2
1190	1200		0 1.5963547D 02
1200	1210		0 1.63671210 02
1210	1220	1.02542690 2	1 1.6768302D 02
1220	123C	1.05843480 2	1 1.71667850 02
1230	1240		1 1.7562278D C2
1240	125C	1.12507440 2	
1250	1260	1.1586621D 2	
1267	1270		1 1.87280730 02
1270	1280	1.2262646D 2	
1280	1290	1.26023690 2	
1290	1300	1.29429520 2	
1300	1310	1.32841900 2	1 2.0224943D 02

R.K.H. Cebel. Blackbody functions. Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$.

T = 1500°K

$\lambda_{ exttt{min}}$	$\lambda_{ exttt{max}}$	Qo, Δλ		$N_{O,\Delta\lambda}$	
$\times 10^{-9}$ m	$\times 10^{-9}$ m	Quanta $s^{-1} m^{-2}$	sr ⁻¹	$W m^{-2} sr^{-1}$	
1310	1320	1.36258810	21	2.05874130	02
1320	1330	1.39678270	21	2.09447940	02
1330	1340	1.4309833D	21	2.12969100	02
1340	1350	1.4651709D	21	2.16435980	02
1350	1360	1.4993268D	21	2.19847050	02
1360	1370	1.53343290	21	2.23200890	02
1370	1380	1.56747140	21	2.26496180	02
1380	1390	1.60142500	21	2.29731710	02
1390	1400	1.63527700	21	2.32906370	02
1400	1410	1.66901090	21	2.3601915)	02
1410	1420	1.79261100	21	2.3906914D	02
1420	1430	1.7360618D	21	2.42055510	02
1430	1440	1.76934840	21	2.44977520	02
1440	1450	1.80245640	21	2.4783454D	02
1450	1460	1.8353720D	21	2.50626000	02
1460	1470	1.8680816D	21	2.53351430	02
1470	1480	1.9005725D	21	2.56010430	0.2
1480	1490	1.93283210	21	2.58602670	0.2
1490	1500	1.9648484D	21	2.61127920	02
1500	1510	1.99661010	21	2.63585990	C2
1510	1520	2.02810620	21	2.65976760	02
1520	1530	2.05932610	21	2.68300210	02
1530	1540 1550	2.0902598D 2.1208978D	21	2.70556340	02
1540 1550	1560		21	2.72745230 2.74867020	02
1560	1570	2.13125100	21	2.76921900	02
1570	1580		21	2.78910100	02
1580	1590		21	2.80831910	02
1590	1600		21	2.8268768D	02
1600	1610		21	2.84477 7 7D	02
1610	1620		21	2.86202620	02
1620	1630		21	2.87862680	02
1630	1640		21	2.89458450	02
1640	1650		21	2.90990460	02
1650	1660		21		02
1660	1670	2.4626127D	21	2.93865510	02
1670	1680	2.4887356D	21	2.9520978D	02
1680	1690	2.5144737D	21	2.9649273D	02
1690	1700	2.53982370	21	2.9771504D	02
1700	1710	2.5647824D	21	2.98877410	02
1719	1720	2.5893469D	21	2.99980560	02
1720	1730	2.6135148D	21	3.01025240	02
1730	1740		21		02
1740	1750		21		02
1750	1760		21		02
1760	1770		21		02
1770	1780		21		02
1780	1790		21		02
1790	1800		21		02
1800	1810	2.7923748D	21	3.07371700	02

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{O\,,\Delta\lambda}$ and Radiance $N_{O\,,\Delta\lambda}$.

T = 1500°K

$\lambda_{ exttt{min}}$	$\lambda_{ exttt{max}}$	$Q_{O,\Delta\lambda}$	$N_{O,\Delta\lambda}$
$\times 10^{-9}$ m	$\times 10^{-9}$ m	Quanta s^{-1} m^{-2} sr^{-1}	$W m^{-2} sr^{-1}$
1810	1820	2.8129075D 21	3.07925910 02
1920	1830	2.8330338D 21	3.0842980D 02
1830	1840	2.85275410 21	3.0888424D 02
1840	1950	2.8720688D 21	3.0929008D 02
1850	1860	2.89097880 21	3.0964819D 02
1860	1870	2.90948510 21	3.0995945D 02
1870	1880	2.9275887D 21	3.10224720 02
1880	1890	2.9452910D 21	3.1044487D 02
1890	1900	2.96259340 21	3.1062078D C2
1900	1910	2.97949770 21	3,10753310 02
1910	1920	2.9960056D 21	3.1084333D 02
1920	1930	3.0121190D 21	3.1089170D 02
1930	1940	3.0278400D 21	3.1089928D 02
1940	1950	3.0431710D 21	3.1086694D 02
1950	1960	3.05811410 21	3.1079551D 02
1960	1970	3.0726719D 21	3.1068584D C2
1970	1980	3.0868469D 21	3.1053878D 02
1980	1990	3.10064190 21	3.10355170 02
1990	2000	3.1140597D 21	3.10135820 02
2000	2010	3.1271030D 21	3.0988155D 02

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{0},_{\Lambda\lambda}$ and Radiance $N_{0},_{\Lambda\lambda}$.

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$\lambda_{ exttt{min}}$	$\lambda_{ exttt{max}}$	Qo, AA	$N_{O,\Delta\lambda}$
×10 ⁻⁹ n	9	Quanta s^{-1} m^{-2} sr^{-1}	$\mathrm{W}~\mathrm{m}^{-2}~\mathrm{sr}^{-1}$
2000	2100	3.17977490 22	3.08200990 03
2100	2200	3.27483360 22	3.02661060 03
2200	300 ء	3.33783169 22	2.94779940 03
2300	2400	3.3726008D 22	2.85190860 03
2400	2500	3.3829757D 22	2.7438548D 03
2500	د600	3.37261910 22	2.62820230 03
2600	2700	3.34491890 22	2.50826520 03
2700	2800	3.3029352D 22	2.38672400 03
2800	2900	3.2493879D 22	2.2656417D 03
2900	3000	3.18663580 22	2.14657180 03
3000	3200	6.1582091D 22	3.9493473D 03
3200	400 ذ	5.8427261D 22	3.5198584D 03
3400	3600	5.5098021D 22	3.12953870 03
3600	3900	5.17343250 22	2.7795674D 03
3800	4000	4.84297100 22	2.4685102D 03
4000	4200	4.5244073D 22	2.1935787D 03
4200	4400	4.22134310 22	1.9513975D 03
4400	→ 600	3.93571580 22	1.73845530 03
4000	→ 800	3.66837470 22	1.55135660 03
4800	3000	3.41920790 22	1.3869513D 03
5000	5300	7.57314620 22	2.9721797D 03
5500	0000	6.37997650 22	2.2086399D 03
6000	0500	5.4021004D 22	1.72010750 03
5 500	7000	4.50051540 22	1.35612890 03
7000	7500	3.9416632D 22	1.08158250 03
7500	3000	3.39734260 22	8.71959090 02
3000	3500	2.94523080 22	7.1002403D 02
3500	9000	2.5675053D 22	5.8353574D C?
9000	9500	2.2500528D 22	4.8370173D 02
9500	10000	1.98169230 22	4.04134350 02
10000	1.000	3.31205600 22	6.28372940 02
11000	12000	2.63714270 22	4.5663469D 02
12000	1 3000	2.13186300 22	3.39503150 02
13000	14330	1.74.70510 22	2.5749534D C2
14000	15000	1.44832265 22	1.98742460 02
15000	15000	1.21377940 22	1.5578554D 02

R.K.H. Gebel. Blackbody functions. Blackbody Quantum Radiance $Q_{0,L\lambda}$ and Radiance $N_{0,\Delta\lambda}$.

T = 2000°K

$\lambda_{ exttt{min}}$	$\lambda_{ exttt{max}}$	Qo, Δλ	$N_{O,\Delta\lambda}$
×10 ⁻⁹ m	$\times 10^{-9}$ m	Quanta s^{-1} m^{-2} sr^{-1}	$W m^{-2} sr^{-1}$
300	310	4.0126552D 16	2.60965210-02
310	320	7.4418160D 16	4.6869487D-02
320	330	1.32375540 17	8.0818121D-02
330	340	2.26714330 17	1.3429925D-01
340	350	3.75111CCD 17	2.1578876D-01
350	360	6.0138309D 17	3.362437CD-01
360	370	9.3672166D 17	5.09433400-01
370	380	1.4209236D 18	7.52217520-01
380	390	2.1035665D 18	1.08475120 00
390	400	3.0450680D 18	1.5306011D 00
400	410	4.3175758D 18	2.1167608D 00
410	420	6.0056387D 18	2.8735598D 00
420	430	8.2066219D 18	3.8344648D 00
430	44C	1.10308380 19	5.0357796D 00
440	45C	1.4601375D 19	6.5162505D 00
450	460	1.9053630D 19	8.31659180 00
460	470	2.4534535D 19	1.0478946D 01
470	480	3.1201518D 19	1.30462990 01
330	490	3.92212100 19	1.6061862D 01
451)	500	4.87679370 19	1.9568443D 01
5110	510	6.0022043D 19	2.3607830D 01
510	520	7.31680710 19	2.82201850 01
520	530	8.83928640 19	3.3443481D C1
530	540	1.0588361D 20	3.93129830 01
) ±0	550	1.2582590D 20	4.5860783D 01
5.0	560	1.4840180D 2C	5.3115400D C1
560 570	570 580	1.7378799D 20 2.0215401D 20	6.1101440D 01 6.9839335D 01
58 0	590	2.0215401D 20 2.3366066D 20	6.9839335D 01 7.9345146D 01
590	600	2.6845848D 20	8.9630428D 01
600	610	3.0668643D 20	1.00702170 02
610	620	3.4847073D 20	1.1256280D 02
620	630	3.9392391D 20	1.25210220 02
630	640	4.43143970 20	1.3863794D 02
640	650	4.9621379D 20	1.52835190 02
650	660	5.53200690 20	1.6778716D 02
660	670	6.14156140 20	1.83475170 02
670	680	6.7911566D 20	1.9987699D C2
680	690	7.4809885D 20	2.1696703D 02
690	700	8.21109590 20	2.3471670D 02
700	710	9.9813630D 20	2.53094670 02
710	720	9.7915240D 20	2.7206720D 02
720	730	1.0641168D 21	2.9159842D 02
730	740	1.1529746D 21	3.11650690 02
740	750	1.2456576D 21	3.3218482D C2
750	760	1.342085CD 21	3.53160460 02
760	770	1.44216460 21	3.7453630D C2
770	780	1.5457931D 21	3.96270390 02
780	790	1.6528574D 21	4.18320390 02
7 90	800	1.76323500 21	4.4064378D C2

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$.

20	00	٩K	
	20	2000	2000°K

λ	λ	$Q_{O,\Delta\lambda}$	No. 43
λ_{\min}	λ _{max}		$N_0, \Delta\lambda$
$\times 10^{-9}$ m	×10 ^{−9} m	Quanta $s^{-1} m^{-2} sr^{-1}$	$\mathrm{W}~\mathrm{m}^{-2}~\mathrm{sr}^{-1}$
800	810	1.8767954D 21	4.6319815D 02
810	820	1.9934005D 21	4.85941350 02
820	83C	2.1129058D 21	5.0883170D C2
630	840	2.23516110 21	5.31828170 02
840	850	2.3600114D 21	5.5489055D 02
850	860	2.4872976D 21	5.7797957D 02
860	87C	2.6168576D 21	6.0105704D 02
870	880 880	2.7485265D 21	6.2408594D 02
880	89C	2.8821380D 21	6.4703054D 02
890	900	3.0175243D 21	6.69856470 02
900	910 920	3.15451750 21 3.29294980 21	6.9253078D 02 7.1502198D 02
910 920	930		7.1502198D 02 7.3730012D 02
930	940	3.4326541D 21 3.5734644D 21	7.59336790 02
940	950	3.7152168D 21	7.8110516D 02
950	960	3.8577492D 21	8.0257995D 02
960	970	4.0009023D 21	8.23737490 02
970	980	4.1445197D 21	8.4455567D 02
980	990	4.2894484D 21	8.6501394D 02
990	1000	4.43253880 21	8.85093290 02
1000	1010	4.57644 21	9.0477624D 02
1010	1020	4.72062600 21	9.24046770 02
1020	1030	4.8643439D 21	9.42890350 02
1030	1040	5.0076661D 21	9.61293830 02
1040	1050	5.1504641D 21	9,7924544D 02
1050	1060	5.2926143D 21	9.9673476D 02
1060	1070	5.4339979D 21	1.01375260 03
1 C 7 C	1080	5.5745009D 21	1.03029110 03
1080	1090	5.7140141D 21	1.0463435D 03
1090	1100	5.85243330 21	1.0619042D 03
1100	1110	5.9896593D 21	1.0769687D 03
1110	1120	6.1255976D 21	1.0915336D 03
1120	1130	6.2601588D 21	1.1055963D 03
1130	1140	6.3932582D 21	1.1191553D 03
1140	1150	6.52481590 21	1.1322099D 03
1150	1160	6.6547568D 21	1.14476040 03
1160	1170	6.7830104D 21	1.15680760 03
1170	1180	6.90951080 21	1.1683534D 03
1180	1190	7.03419650 21	1.1794000D 03
1190	1200	7.1570105D 21	1.1899505D 03
1200	1210	7.2779000D 21	1.2000085D 03
1210	1220	7.3968164D 21	1.20957840 03
1220	1230	7.51371510 21 7.62855550 21	1.21866470 03
1230 1240	1240 1250	7.62855550 21 7.74130090 21	1.2272728D 03 1.2354082D 03
1250	1260	7.85191800 21	1.24307719 03
1260	1270	7.96037740 21	1.25028580 03
1270	1270	8.06665290 21	1.2570411D 03
1280	1290	8.17072180 21	1.2633500D 03
1290	1300	8.2725646D 21	1.2692200D 03
1300	1310	8.3721647D 21	1.2746586D 03
			1120000

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$. $T = 2000^{\circ}K$

$\lambda_{ exttt{min}}$	$\lambda_{ exttt{max}}$	$Q_{O,\Delta\lambda}$	$N_{O,\Delta\lambda}$
×10 ⁻⁹ m	×10 ⁻⁹ m	Quanta $s^{-1} m^{-2} sr^{-1}$	$W m^{-2} sr^{-1}$
1310	1320	8.46950850 21	1.27967350 03
1320	1330	8.5645853D 21	1.28427280 03
1330	1340	8.6573872D 21	1.2884646D 03
1340	1 350	8.7479085D 21	1.29225720 03
1350	1360	8.8361464D 21	1.2956590D 03 1.2986784D 03
1360	1370	8.9221002D 21 9.0057715D 21	
1370	1380	9.0057715D 21 9.0871639D 21	1.3013241D 03 1.3036047D 03
1380 1390	1390 1400	9.1662832D 21	1.30552890 03
1400	1410	9.2431370D 21	1.30710520 03
1410	1420	9.31773470 21	1.3083425D 03
1420	1430	9.39008750 21	1.30924940 03
1430	1440	9.46020 79 D 21	1.3098346D 03
1440	1450	9.5281103D 21	1.31010670 03
1450	1460	9.59381020 21	1.31007430 03
1460	1470	9.65732470 21	1.30974590 03
1470	1480	9.71867180 21	1.30913010 03
1480	1490	9.77787100 21	1.30823510 03
1490	1500	9.8349426D 21	1.30706940 03
1500	1510	9.889908CD 21	1.30564100 03
1510	1520	9.9427896D 21	1.30395830 03
1520	1530	9.9936105D 21	1.30202910 03
1530	1540	1.0042395D 22	1.2998615D 03
1540	1550	1.00891670 22	1.2974632D 03
1550	1560	1.01339520 22	1.29484180 03
1560	1570	1.0176777D 22	1.29200500 03
1570	1580	1.0217667D 22	1.2889602D 03
1580	1590	1.02566500 22	1.2857147D 03
1590	1600	1.0293753D 22	1.28227570 03
1600	1610	1.0329003D 22	1.27865030 03
1610	1620	1.03624290 22	1.27484530 03
1620	1630	1.0394059D 22	1.27086750 03
1630	1640	1.042392!D 22	1.2667236D 03
1640	1650	1.0452045D 22	1.26242010 03
1650	1660	1.04784590 22	1.25796330 03
1660	1670	1.05031920 22	1.2533594D 03
1670	1680	1.0526274D 22	1.24861470 03
1680	1690	1.0547733D 22	1.24373490 03
1690	1700	1.0567598D 22	1.23872590 03
1700	1710	1.0585900D 22	1.23359340 03
1710	1720	1.06026670 22	1.2283430D 03
1720	1730	1.06179270 22	1.22297990 03
1730	1740	1.0631711D 22 1.0644047D 22	1.21750960 03
1740 1750	1750 1760	1.0654963D 22	1.21193710 03 1.20626740 03
1760	1770	1.0664489D 22	
1770	1780	1.0672653D 22	1.2005054D 03 1.1946558D 03
1780	1790	1.06726330 22 1.0679482D 22	1.19465560 03 1.1887232D 03
1790	1800	1.06850060 22	1.18271220 03
1800	1810	1.06892510 22	1.17662710 03

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance ${\tt Q}_{0,\Delta\lambda}$ and Radiance ${\tt N}_{0,\Delta\lambda}$.

T = 2000°K

λ_{\min}	$\lambda_{ exttt{max}}$	$Q_{O,\Delta\lambda}$	$N_{O,\Delta\lambda}$
×10 ⁻⁹ m	×10 ⁻⁹ m	Quanta $s^{-1} m^{-2} sr^{-1}$	$W m^{-2} sr^{-1}$
1810	1820	1.06922450 22	1.17047220 03
1820	1830	1.06940170 22	1.1642515D 03
1830	1840	1.0694591D 22	1.15796910 03
1840	1850	1.0693997D 22	1.1516288D 03
1850	1860	1.06922596 22	1.14523440 03
1860	1870	1.06894040 22	1.13878970 03
1870	1880	1.0685459D 22	1.1322981D 03
1880	1890	1.0680448D 22	1.1257631D 03
1890	1900	1.06743970 22	1.1191879D 03
1900	1910	1.0667331D 22	1.1125760D 03
1910	192C	1.0659275D 22	1.10593030 03
1920	1930	1.06502520 22	1.0992540D 03
1930	1940	1.0640288D 22	1.0925500D 03
1940	1950	1.0629404D 22	1.0858210D 03
1950	1960	1.0617626D 22	1.0790699D 03
1960	1970	1.0604975D 22	1.0722993D 03
1970	1980	1.05914740 22	1.0655118D 03
1980	1990	1.0577147D 22	1.0587098D 03
1990	2000	1.05620130 22	1.05189580 03
2000	2010	1.0546096D 22	1.04507210 03

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{0,\Lambda\lambda}$ and Radiance $N_{0,\Lambda\lambda}$.

T = 2000°K

$\lambda_{ exttt{min}}$	$\lambda_{ exttt{max}}$	Qo, Δλ	$N_{O,\Delta\lambda}$
$\times 10^{-9}$ m	$\times 10^{-9}$ m	Quanta $s^{-1} m^{-2} sr^{-1}$	1 W m $^{-2}$ sr $^{-1}$
2000	2100	1.04625530 23	1.0143096D 04
2100	2200	1.0237532D 23	9.4633400D 03
2200	2300	9.96271690 22	8.7999889D 03
2300	2400	9.65273560 22	8.16333230 03
2400	2500	9.31939890 22	7.5596913D 03
2500	2600	8.97209910 22	6.99250770 03
2600	2700	8.61819850 22	6.46317950 03
2700	2800	8.26338500 22	5.9716901D 03
2800	2900	7.9119829D 22	5.5170732D 03
2900	000د	7.56721830 22	5.09775340 03
3000	3200	1.41377450 23	9.0688401D 03
3200	3400	1.2884899D 23	7.76377220 03
3400	3600	1.17324150 23	6.66498910 03
3600	800د	1.06825110 23	5.7402152D 03
3800	4000	9.7319532D 22	4.96101490 03
4000	4200	8.87460750 22	4.30309520 03
4200	4400	8.10300050 22	3.7460658D 03
440C	4600	7.40925590 22	3.2729853D 03
4500	480C	6.7856332N 22	2.86985500 03
4800	5000	6.2248214D 22	2.52513750 03
5000	5500	1.3461586D 23	5.1067375D 03
5300	ა000	1.10117930 23	3.8128259D 03
6000	6500	9.10174750 22	2.89855140 03
6500	7000	7.5970636D 22	2.2396494D 03
7000	7500	6.3992183D 22	1.7560873D 03
7500	3000	5.4358652D 22	1.39526550 03
8000	8500	4.65354130 22	1.1219228D 03
5500	9000	4.01239790 22	9.1197165D 02
9000	9500	3.4824491D 22	7.4856488D 02
9500	10000	3.0409074D 22	6.2016567D 02
10000	11000	5.02732630 22	9.5390303D 02
11000	12300	3.45312770 22	6.84560000 02
12000	13000	3.16297819 22	5.03725710 02
13000	14300	2.56909410 22	3.7874862D 02
14000	15000	2.11457970 22	2.90179270 02
15000	16000	1.76092870 22	2.2601794D 02

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{O_1,\Lambda\lambda}$ and Radiance $N_{O_1,\Delta\lambda}$.

Т	=	25	U	Λ	0	K
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$\lambda_{ exttt{min}}$	$\lambda_{\mathtt{max}}$	Qo,Δλ	$N_{O,\Delta\lambda}$
$\times 10^{-9}$ m	$\times 10^{-9}$ m	Quanta $s^{-1} m^{-2} sr^{-1}$	$\mathrm{W}~\mathrm{m}^{-2}~\mathrm{sr}^{-1}$
300	310	4.4585277D 18	2.90083150 00
310	320	7.1249487D 18	4.4890768D 00
320	330	1.10204240 19	6.73052480 00
330	340	1.65483010 19	9.8058421D 00
340	350	2.41883090 19	1.39187430 01
350	360	3.4496969D 19	1.92929750 01
360	370	4.8105204D 19	2.6168276D 01
370	380	6.57131770 19	3.4795510D 01
380	390	8.80825510 19	4.5431225D 01
390	400	1.1602647D 20	5.8331900D 01
400	410	1.50397700 20	7.37481270 01
410	420	1.9207535D 20	9.1918979D 01
420	430	2.41950790 20	1.1306675D 02
430	440	3.0091306D 20	1.3739227D 02
440	450	3.6983453D 20	1.6507084D 02
450	460	4.4955689D 20	1.9624899D 02
460	470	5.4087817D 20	2.3104197D 02
470	480	6.4454085D 20	2.6953212D 02
480	490	7.6122135D 20	3.1176790D 02
490	500	8.9152115D 20	3.5776379D 02
500	510	1.0359595D 21	4.0750075D 02
510	520	1.1949676D 21	4.6092731D 02
520	530	1.3688852D 21	5.17961200 02
530	540	1.55795760 21	5.7849130D 02
540	550	1.7623352D 21	6.4238004D 02
550	560	1.9820738D 21	7.0946591D 02
560	570	2.2171369D 21	7.79566260 02
570	580	2.4673978D 21	8.5248014D 02
580	590	2.7326442D 21	9.27991120 02
590	600	3.0125822D 21	1.0058702D 03
600	610	3.3068422D 21	1.0858785D 03
610	62C	3.6149842D 21	1.1677701D 03
620	63C	3.9365040D 21	1.2512942D 03
630	640	4.2708399D 21	1.33619810 03
640	650	4.6173789D 21	1.42222870 03
650	660	4.9754633D 21	1.5091348D 03
660	670	5.34439710 21	1.5966691D 03
670	68C	5.7234525D 21	1.68458930 03
680	690	6.11187610 21	1.7726601D 03
690	700	6.5088945D 21	1.8606539D 03
700	710	6.9137200D 21	1.9483518D 03
710	720	7.3255562D 21	2.0355450D 03
720	730	7.7436024D 21	2.1220350D 03
730	74C	8.1670585D 21	2.2076341D 03
740	750	8.59512920 21	2.2921662D 03
750	760	9.02702770 21	2.37546650 03
760	770	9.4619793D 21	2.45738210 03
770	780	9.8992243D 21	2.5377718D 03
780	790	1.03380210 22	2.6165063D 03
790	800	1.0777648D 22	2.6934676D 03

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$. $T=2500^{\circ}K$

$\lambda_{ exttt{min}}$	$\lambda_{ exttt{max}}$	$Q_{O,\Delta\lambda}$	$N_{O,\Delta\lambda}$
×10 ⁻⁹ m	×10 ⁻⁹ m	Quanta $s^{-1} m^{-2} sr^{-1}$	
800	810	1.1217405D 22	2.7685492D 03
810	820	1.1656618D 22	2.8416558D 03
820	830	1.2094638D 22	2.91270260 03
830	840	1.2530841D 22	2.98161550 03
840	850	1.2964632D 22	3.0483303D 03
850	860	1.3395444D 22	3.11279240 03
860	870	1.38227410 22	3.1749564D 03
870	880	1.4246012D 22	3.2347857D 03
880	890	1.4664779D 22	3.2922516D 03
890	900	1.5078592D 22	3.3473335D 03
900	910	1.5487029D 22	3.4000181D 03
910	920	1.5889698D 22	3.4502987D 03
920	930	1.6286236D 22	3.4981751D 03
930	940	1.6676307D 22	3.5436530D 03
940	950	1.7059600D 22	3.5867436D 03
950	960	1.74358350 22	3.62746310 03
960 970	970	1.7804753D 22 1.8166124D 22	3.6658324D 03
980	980 990	1.8166124D 22 1.8519739D 22	3.70187650 03 3.73562430 03
990	1000	1.8865414D 22	3.7671082D 03
1000	1016	1.9202987D 22	3.7963636D 03
1010	1020	1.9532316D 22	3.82342900 03
1020	1030	1.9853281D 22	3.8483449D 03
1030	1040	2.0165781D 22	3.87115440 03
1040	1050	2.0469735D 22	3.8919023D 03
1050	1060	2.0765076D 22	3.9106349D 03
1060	1070	2.1051758D 22	3.9274001D 03
1070	1080	2.13297480 22	3.9422469D 03
1080	1090	2.1599028D 22	3.9552252D 03
1090	1100	2.1859597D 22	3.9663855D 03
1100	1110	2.2111463D 22	3.9757791D 03
1110	1120	2.2354649D 22	3.98345750 03
1120	1130	2.2589190D 22	3.98947240 03
1130	1140	2.2815129D 22	3.99387570 03
1140	1150	2.3032523D 22	3.99671900 03
1150 1160	1160 1170	2.3241435D 22 2.3441937D 22	3.9980540D 03 3.9979319D 03
1170	1180	2.3634112D 22	3.9964036D 03
1180	1190	2.3818046D 22	3.99351950 03
1190	1200	2.3993835D 22	3.98932930 03
1200	1210	2.4161579D 22	3.9838822D 03
1210	1220	2.4321386D 22	3.9772266D 03
1220	1230	2.4473365D 22	3.9694102D 03
1230	1240	2.4617634D 22	3.9604799D 03
1240	1250	2.47543120 22	3.9504816D 03
1250	1260	2.48835230 22	3.9394604D 03
1260	1270	2.5005393D 22	3.9274605D 03
1270	1280	2.5120052D 22	3.9145250D 03
1280	1290	2.5227631D 22	3.9006963D 03
1290	1300	2.5328265D 22	3.88601540 03
1300	1310	2.5422088D 22	3.87052250 03

R.K.H. Gebel. Blackbody functions. Blackbrdy Quantum Radiance $Q_{0},_{\Delta\lambda}$ and Radiance $N_{0},_{\Delta\lambda}$.

Т	=	2	5	Λ	n	0	K
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$\lambda_{ exttt{min}}$	$\lambda_{ exttt{max}}$	Qo, AA		$N_{O,\Delta\lambda}$	
$\times 10^{-9}$ m	$\times 10^{-9}$ m	Quanta s^{-1} m^{-2}	sr-1	$\rm W~m^{-2}~sr^{-1}$	
1310	1320	2.55092370	22	3.85425690	03
1320	1330	2.5589850D	22	3.8372567D	03
1330	1340	2.5664065D	22	3.819559CD	03
1340	1350	2.57320220	22	3.8011999D	03
1350	1360	2.57938590	22	3.7822144D	03
1360	1370	2.58497150	22	3.7626365D	03
1370	1380	2.5899730D	22	3.7424993D	03
1380	1390	2.59440410	22	3.7218347D	03
1390	1400	2.59827880	22	3.70067370	03
1400	1410	2.60161060	22	3.67904640	03
1410	1420	2.60441330	22	3.65698170	03
1420	1430	2.60670040	22	3.63450770	03
1430	1440	2.60848530	22	3.61165160	03
1440	1450	2.60978120	22	3.5884396D	03
1450	1460	2.61060130	22	3.5648969D	03
1460 1470	1470 1480	2.6109586D 2.6108660D	22 22	3.5410479D 3.5169161D	03
1480	1490	2.61033610	22	3.49252430	03
1490	1500	2.60938130	22	3.46789420	03
1500	1510	2.60801410	22	3.44304690	03
1510	1520	2.6062465D	22	3.4180025D	03
1520	1530	2.6040905D	22	3.3927804D	03
1530	1540	2.60155780	22	3.3673995D	03
1540	1550	2.59866000	22	3.3418776D	03
1550	1560	2.59540850	22	3.31623180	03
1560	1.570	2.59181430	22	3.2904789D	03
1570	1580	2.58788840	22	3.2646345D	03
1580	1590	2.58364160	22	3.23871390	03
1590	1600	2.5790844D	22	3.2127317D	93
1600	1610	2.57422700	22	3.1867017D	03
1610	1620	2.56907970	22	3.1606373D	03
1620	1630	2.5636523D	22	3.13455120	03
1630	1640	2.55795450	22	3.1084556D	03
1640	1650		22		03
1650	1660	2.54578550		3.05628200	
1660	1670		2.2		03
1670	1680		22		03
1680 1690	1690	2.5257344D 2.5186063D	22		03
1700	1700 1710		22 22		03 03
1710	1720		22		93
1720	173C		22		03
1730	1740	2.48809090	22		03
1740	1750		22		03
1750	1760		22		03
1760	1770	2.4633166D	22		03
1770	1780		22		03
1780	1790		22		03
1790	1300		22		03
1800	1810	2.42813320	22	2.6727905D	03

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$.

T =	: 25	00	°K
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$\lambda_{ exttt{min}}$	$\lambda_{ exttt{max}}$	Qo, Δλ	$N_{O,\Delta\lambda}$
$\times 10^{-9}$ m	$\times 10^{-9}$ m	Quanta $s^{-1} m^{-2} sr^{-1}$	$W m^{-2} sr^{-1}$
1810	1820	2.4189972D 22	2.6480632D 03
1820	1830	2.4097375D 22	2.62347230 03
1830	1840	2.40036020 22	2.5990220D 03
1849	1850	2.3908709D 22	2.5747161D 03
1850	1860	2.3812752D 22	2.5505584D 03
1860	1870	2.3715786D 22	2.5265523D 03
1870	1880	2.36178640 22	2.5027008D 03
1880	1890	2.3519037D 22	2.4796071D 03
1899	1900	2.3419355D 22	2.4554738D 03
1900	1910	2.3318868D 22	2.43210350 03
1910	1920	2.32176210 22	2.4088985D 03
1920	1930	2.3115661D 22	2.3858610D 03
1930	1 940	2.3013032D 22	2.3629930D 03
1940	1950	2.2909777D 22	2.34029610 03
1950	1960	2.2805939D 22	2.31777220 03
1960	1970	2.2701558D 22	2.2954226D 03
1970	1980	2.2596674D 22	2.2732487D 03
1980	1990	2.2491324D 22	2.2512516D 03
1990	2000	2.23855450 22	2.2294324D 03
2000	2010	2.22793 75 D 22	2.2077919D 03

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{0},_{\Delta\lambda}$ and Radiance $N_{0},_{\Lambda\lambda}$.

T = 2500°K

$\lambda_{ exttt{min}}$	λ _{max}	Qo, AA		$N_{O,\Delta\lambda}$	
$\times 10^{-9}$ m	$\times 10^{-9}$ m	Quanta $s^{-1} m^{-2} s$	sr ⁻¹	$W m^{-2} sr^{-1}$	
2000	2100	2.17967740	23	2.1133887D	04
2100	2200	2.0715366D	23	1.9150861D	04
2200	2300	1.96368770	23	1.7346700D	04
2300	2400	1.85792710	23	1.5713776D	04
2400	2500	1.75547940	23	1.42410590	04
2500	2600	1.6571405D	23	1.2915906D	04
2600	2700	1.56338950	23	1.17252040	04
2700	2800	1.4744739D	23	1.0656073D	04
2800	2900	1.39047490	23	9.6962790D	C3
2900	3000	1.3113560D	23	8.8344542D	03
3000	3200	2.40423330	23	1.5424265D	04
3200	3400	2.1424842D	23	1.29108610	04
3400	3600	1.91306150	23	1.0968728D	04
3600	3800	1.71222740	23	9.20126970	03
3800	4000	1.53639060	23	7.83246810	03
4000	4200	1.3822689D	23	6.7026542D	03
4200	4400		23	5.7649667D	03
4400	4600		23	4.98251320	03
4600	4800		23	4.32614390	03
4800	5000		22	3.7727263D	03
5000	5500		23	7.5295335D	03
5500	5000		23	5.5294984D	03
6000	6500		23	4.1468539D	03
5500	7000	_	23	3.16803160	03
700C	7500		22	2.4602574D	03
7500	3000		22	1.93870110	03
8000	8500		22	1.54779590	C 3
8500	9000		22	1.25030900	03
9000	9500		22	1.02077320	03
9500	10000		22	8.4143882D	C2
10000	11000		22	1.28628290	03
11000	12000		22	9.1647788D	02
12000	13000		22	6.7038048D	02
13000	14000		22	5.01540190	02
14000	15000		22	3.82620930	0.2
15000	16000	2.31333350	22	2.9692541D	02

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{O,\Delta\lambda}$ and Radiance $N_{O,\Delta\lambda}$. $T = 3000^{\circ}K$

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$\lambda_{ exttt{min}}$	$^{\lambda}$ max	Qo,Δλ	$N_{O,\Delta\lambda}$
$\sim 10^{-9}$ m	$\times 10^{-9}$ m	Quanta $s^{-1} m^{-2} sr^{-1}$	$\mathrm{W~m}^{-2}~\mathrm{sr}^{-1}$
300	310	1.0315843D 20	6.7136199D 01
310	320	1.49256760 20	9.4063104D 01
320	330	2.1029426D 20	1.2846308D 02
330	340	2.8924350D 20	1.71429980 02
340	350	3.8921904D 20	2.2401267D 02
350	360	5.1340631D 20	2.8718161D 02
360	370	6.6498719D 20	3.6179901D 02
370	380	8.4706578D 20	4.4859395D 02
380	190	1.0625975D 21	5.4814311D 02
390	400	1.3143244D 21	6.6085736D 02
400	410	1.6047177D 21	7.8697432D 02
410	420	1.9359309D 21	9.2655634D 02
420	430	2.30976130 21	1.0794936D 03
430	440	2.7276235D 21	1.2455115D 03
440	45C	3.1905320D 21	1.4241814D 03
450	460	3.6990939D 21	1.6149345D 03
460	470	4.2535100D 21	1.8170771D 03
470	480	4.8535842D 21	2.0298081D 03
480	490	5.4987393D 21	2.2522363D 03
490	500	6.1880385D 21	2.4833980D 03
500	510	6.9202114D 21	2.72227460 03
510	520	7.6936829D 21	2.96780910 03
520	530	8.5066054D 21	3.21892190 03
530	540	9.35589120 21	3.4745249D 03
540	550	1.02422470 22	3.73353460 03
550	560	1.1160206D 22	3.9948840D 03
560	570	1.2108162D 22	4.25753240 03
570	58C	1.3083401D 22	4.52047390 03
580	590	1.4083130D 22	4.78274510 03
590	600	1.51045070 22	5.0434305D 03
600	610	1.6144667D 22	5.3016677D 03
610	620 630	1.72C0743D 22 1.8269892D 22	5.5566500D 03 5.8076296D 03
620 630	540	1.9349311D 22	5.8076296D 03 6.0539188D 03
640	650	2.0436256D 22	6.2948901D 03
650	660	2.1528057D 22	6.5299771D 03
660	670	2.2622128D 22	6.7586727D 03
670	680	2.37159810 22	6.9805286D 03
680	690	2.4307234D 22	7.195153.D 03
690	700	2.5893616D 22	7.4022093D 03
700	710	2.6972975D 22	7.6014127D 03
710	720	2.80432810 22	7.7925284D 03
720	730	2.9102627D 22	7.97536860 03
730	740	3.0149233D 22	8.1497897D 03
740	750	3.1181444D 22	8.31568950 03
750	760	3.2197731D 22	8.4730040D 03
760	770	3.3196688D 22	8.6217048D 03
770	780	3.4177031D 22	8.7617961D 03
780	790	3.5137594D 22	8.89331200 03
790	800	3.6077328D 22	9.0163134D 03

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$.

T = 3000°K

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λ_{\min}	λ _{max}	Qο,Δλ	$N_{O}, \Delta\lambda$
×10 ⁻⁹ m	$\times 10^{-9}$ m	Quanta s^{-1} m^{-2} sr^{-1}	$W m^{-2} sr^{-1}$
800	810	3.6995295D 22	9.1308862D 03
810	820	3.7890662D 22	9.2371379D 03
820	830	3.8762702D 22	9.3351959D 03
830	840	3.9610786D 12	9.42520470 03
840	850	4.0434379D 22	9.50732420 03
850	860	4.1233034D 22	9.5817275D 03
860	870	4.2006390D 22	9.64859920 03
870	980	4.2754163D 22	9.70813320 03
880	890	4.3476146D 22	9.76053180 03
890	900	4.4172202D 22	9.80600340 03
900	910	4.4842258D 22	9.84476180 03
910	920	4.5486303D 22	9.87702460 03
920 930	930 940	4.6104381D 22 4.6696590D 22	9.9030122D 03 9.9229466D 03
940	950	4.7263075D 22	9.9229466D 03 9.9370504D 03
950	960	4.7804026D 22	9.94554620 03
960	970	4.8319672D 22	9.9486558D 03
970	980	4.8810280D 22	9.94659910 03
980	990	4.9276150D 22	9.9395940D 03
990	1000	4.9717613D 22	9.92785570 03
1000	1010	5.0135024D 22	9.91159600 03
1010	1020	5.0528766D 22	9.8910232D 03
1020	1030	5.0899240D 22	9.86634160 03
1030	1040	5.1246869D 22	9.83775110 03
1040	1050	5.1572090D 22	9.8054471D 03
1050	1060	5.1875353D 22	9.7696203D 03
1060	1070	5.2157124D 22	9.73045630 03
1070	1080	5.24178740 22	9.6881359D 03
1080	1090	5.2658087D 22	9.64283440 03
1090	1100	5.2878248D 22	9.59472210 03
1100	1110	5.3078852D 22	9.5439638D 03
1110	1120	5.3260394D 22	9.49071920 03
1120 1130	1130 1140	5.34233710 22 5.35682830 22	9.43514240 03
1140	1150	5.3695628D 22	9.3773823D 03 9.3175827D 03
1150	1160	5.3805902D 22	9.31758270 03 9.2558820D 03
1160	1170	5.3899600D 22	9.19241330 03
1170	1180	5.39772120 22	9.12730500 03
1180	1190	5.4039226D 22	9.0606801D 03
1190	1200	5.4086124D 22	8.9926569D 03
1200	1210	5.41183830 22	8.9233488D 03
1210	1220	5.4136473D 22	8.8528647D 03
1220	1230	5.41408590 22	8.7813085D 03
1230	1240	5.41319990 22	8.7087800D 03
1240	1250	5.41103430 22	8.6353745D 03
1250	1260	5.4076333D 22	8.5611829D 03
1260	1270	5.4030404D 22	8.48629220 03
1270	1280	5.3972982D 22	8.4107852D 03
1280	1290	5.3904486D 22	8.33474120 03
1290	1300	5.38253250 22	8.25823520 03
1300	1310	5.3735900D 22	8.1813390D 03

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$. $T=3000^{\circ}K$

$\lambda_{ exttt{min}}$	λ	$Q_{O,\Delta\lambda}$		$N_{O,\Delta\lambda}$	
0	^λ ыаж ×10 ⁻⁹ m		sr ⁻¹	W m ⁻² sr ⁻¹	
×]n-/ m	×10 m	Quanta s m	S 1.	w m sr	
1310	1320	5.3636604D	22	8.1041207D	03
1320	1330	5.35278180	22	8.0266451D	03
1330	1340	5.3409918D	22	7.94897360	03
1340	1350	5.3283268D	22	7.8711645D	03
1350	1360	5.3148226D	22		03
1360	1370	5.30051380	22		03
1370	1380	5.2854342D	22	7.63745060	03
1380	1390	5.26961690	22		03
1390	1400	5.2530940D	22		03
1400	1410	5,23589650	22		03
1410	1420	5.2160550D	22		03
1420	1430	5.1995988D	22		03
1430	1440		22		03
1440	1450	5.16095630	22		03
1450	1460	5.14082480	22		03
1460	1470		2.2		03
1470	1480		22		03
1480	1490	5.07750140	22		03
1490	1500		22		03
1500	1510		22		03
1510	1520		22 22		03
1520	1530		22		03 03
1530	1540	4.9636326D	22		03
1540 1550	1550 1560	4.9398078D 4.9156800D	22		03
1560	1570	4.8912683D	22		03
1570	1580	4.8665909D	22		03
1580	1590		22		03
1590	1600	4.8165094D	22		03
1600	1610	4.7911388D	22		03
1610	1620		22		03
1620	1630		22		03
1630	1640	4.71389780	22		03
1640	1650		22		03
1650	1660	4.6616097D	22		03
1660	1670		22		03
1670	1680	4.6088138D	22		03
1680	1690	4.5822572D	22	5.403185CD	03
1690	1700		22	5.3400727D	C3
1700	1710	4.5288858D	22	5.2776094D	03
1710	1720	4.5020935D	22	5.2157964D	03
1720	1730	4.4752444D	22	5.1546347D	03
1730	1740	4.4483485D	22	5.0941244D	03
1740	1750	4.42141570	22	5.0342656D	03
1750	1760	4.39445530	22	4.9750578D	03
1760	1770		22	4.91649990	03
1770	1780	4.3404875D	22		03
1780	1790	4.31349700	22		03
1790	1800	4.28651290	22		03
1800	1810	4.2595427D	22	4.68873730	03

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{O\,,\Delta\lambda}$ and Radiance $N_{O\,,\Delta\lambda}$.

T = 3000°K

λ_{\min}	$\lambda_{ exttt{max}}$	Q ο,Δλ	$N_{O,\Delta\lambda}$
×10 ⁻⁹ m	×10 ⁻⁹ m	Quanta s^{-1} m^{-2} sr^{-1}	$1! \text{m}^{-2} \text{sr}^{-1}$
1810	1920	4.2325938D 22	4.63340310 03
1820	1830	4.2056731D 22	4.5787060D 03
1830	1840	4.1787875D 22	4.52464300 03
1840	1850	4.1519434D 22	4.4712107D 03
1850	1860	4.1251468D 22	4.4184055D 03
1860	1870	4.0984036D 22	4.3662234D 03
1870	1880	4.0717196D 22	4.3146606D 03
1880	1890	4.0450999D 22	4.2637127D 03
1890	1900	4.0185499D 22	4.2133756D 03
1900	1910	3.9920743D 22	4.1636445D 03
1910	1920	3.9656778D 22	4,1145149D 03
1920	1930	3.93936490 22	4.0659821D 03
1930	1940	3.91313970 22	4.0180410D 03
1940	1950	3.8870064D 22	3.9706867D 03
1950	1960	3.8609688D 22	3.9239140D 03
1960	1970	3.8350305D 22	3.8777178D 03
1970	1980	3.8091950D 22	3.8320929D 03
1980	1990	3.7834654D 22	3.7870337D 03
1990	2000	3.75784510 22	3.7425350D 03
2000	2010	3.7323369D 22	3.6985913D 03

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{O,\Lambda\lambda}$ and Radiance $N_{O,\Lambda\lambda}$.

T = 3000°K

$\lambda_{ exttt{min}}$	λ_{max}	Qo, AA		$N_{O,\Delta\lambda}$
$\times 10^{-9}$ m	$\times 10^{-9}$ m	Quanta $s^{-1} m^{-2}$	sr ⁻¹	$W m^{-2} sr^{-1}$
2000	2106	3.61952580	23	3.5097258D 04
2100	2200	3.37707440	23	3.1222360D 04
2200	2300	3.14857260	- 3	2.7815284D 04
2300	2400	2.4346597D	23	2.4821705D 04
2400	2500	2.73536630	23	2.2191222D 04
2500	2600	2.55032780	23	1.9878260D 04
2600	2700	2.3789340D	23	1.7842284D 04
2700	2800	2.22043340	23	1.6047632D 04
2800	2900	2.07400360	23	1.4463157D 04
2900	3000	1.93879940	23	1.3061781D 04
3000	3200	3.5127348D	23	2.2537650D 04
3200	3400	3.08633510	23	1.8599852D 04
3400	3600	2.72210910	23	1.5466039D 04
3600	800د	2.41014230	23	1.29523570 04
3800	4000	2.1420561D	23	1.0920550D 04
4000	4200	1.9108470D	23	9.2650442D 03
4200	4400	1.7106928D	23	7.9092069D 03
4400	4600	1.5367635D	23	6.7889644D 03
4600	4800	1.38505200	23	5.8581315D 03
4800	5000	1.2522296D	23	5.0799867D C3
5000	5500	2.6496448D	23	1.0053967D 04
5500	5000	2.10971420	23	7.3061551D 03
6000	6500	1.70549040	23	5.4320503D 03
6500	7000	1.39736410	23	4.1199254D 03
7000	7500	1.15855800	23	3.1798793D 03
7500	8000	9.71023480	22	2.4925687D 03
8000	8500	8.2158995D	22	1.9808813D 03
8500	9000	7.01164580	22	1.5937388D 03
9000	9500	6.0307099D	22	1.29654550 03
9500	10000	5.2239577D	22	1.0653933D 03
10000	11000	8.54832320	22	1.6221563D 03
11000	12000	6.64284730	22	1.1504253D 03
12000	13000	5.26314940	22	8.3826847D 02
13000	14000	4.2399944D	22	6.2511019D 02
14000	15000	3.46542240	22	4.7557027D 02
15000	16000	2.8683900D	22	3.6817349D 02

R.K.H. Gebel. Blackbody functions. Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$.

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$\lambda_{ exttt{min}}$	$\lambda_{ extbf{max}}$	$Q_{O,\Delta\lambda}$	$N_{O,\Delta\lambda}$	
$\times 10^{-9}$ m	×10 ⁻⁹ m	Quanta $s^{-1} m^{-2}$	sr^{-1} $W m^{-2} sr^{-1}$	
300	310	9.73302560	20 6.33558430	02
310	320	1.3116568D	21 8, 25769300	72
320	330	1.7288008D	21 1.05525240	03
330	340	2.23322920	21 1.32379910	03
340	350	2.8326203D	21 1.63052330	03
350	360	3.53362750	21 1.97683950	03
360	370	4.3417144D	21 2.36246930	03
370	380	5.2610395D	21 2.7864723D	03
380	390	6.2943873D	21 3.2472966D	03
390	400	7.4431444D	21 3.74284420	03
400	410	8.7073154D	21 4.27054620	03
410	420	1.00855730	22 4.8274435D	03
420	430	1.1575338D	22 5.4102695D	03
430	440	1.31728760	22 6.01553160	03
440	450	1.48734210	22 6.6395886D	03
450	460	1.6671296D	22 7.27872290	03
450	470	1.8560050D	22 7. 9292052D	03
470	480	2.05325910	22 8.5873524D	03
480	490	2.25813210	22 9.2495770D	03
490	500	2.4598259D	22 9.9124285D	03
500	510	2.6875165D	22 1.0572628D	04
510	520	2.9103651D	22 1.12270920	04
520	530	3.13752810	22 1.18729570	04
530	540	3.3681664D	22 1.25075870	04
540	550	3.60145360	22 1.3128589D	04
550	560	3.8365825D	22 1.3733808D	04
560	570	4.07277170	22 1.4321335D	04
570	580	4.3092700D	22 1.4889497D	04
580	590		22 1.5436852D	04
590	600	4.7803651D	22 1.5962183D	04
600	610	5.0136440D	22 1.64644810	04
610	620		22 1.69429420	04
620	630		22 1.7396945D	04
630	640		22 1.7826046D	04
640	650	5.9182010D		
650	660		22 1.8608549D	04
660	670		22 1.89618100	04
670	680		22 1.9289858 D	04
680	690		22 1.9592917D	04
690	700		22 1.9871307 D	04
700	71C		22 2.0125432D	04
710	720		22 2.03557680	04
720	730		22 2.05628561)	04
730	74C		22 2.0747289D	04
740	750		22	04
750	760		22 2.10507830	04
760	770		22 2.11712250	04
770	780		22 2.12717590	04
780	790		22 2.13531310	04
790	800	8.56921070	22 2.1416096D	04

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{O,\Delta\lambda}$ and Radiance $N_{O,\Delta\lambda}$.

T = 3500°K

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$\lambda_{ exttt{min}}$	$\lambda_{ exttt{max}}$	$Q_{O,\Delta\lambda}$	$N_{O,\Delta\lambda}$	
$\times 10^{-9}$ m	×10 ⁻⁹ m	Quanta $s^{-1} m^{-2}$	sr^{-1} W m ⁻² sr^{-1}	
800	810	8.6953542D	22 2.1461416 D	04
810	820		22 2.14898570	04
820	830		22 2.15021810	04
830	840		22 2.14991440	04
840	850		22 2.1481496D	04
850	860		22 2.14499750	04
860	370		22 2.1405307D	04
870	086	9.40156950	22 2.1348201D	04
880	890		22 2.12793520	04
890	900		22 2.11994350	04
900	910		22 2.11091070	04
910	920		22 2.10090060	04
920	930		22 2.08997490	04
930	940		2.07819310	04
940	950		2.06561290	04
950	960			04
960	970		2.03827620	04
970	980		22 2.0236242D	04
980 990	990 1000		22 2.0083824D 22 1.9925977D	04
1000	1010		2.2 1.9763151D	04
1010	1020		23 1.9595773D	04
1020	1030		23 1.94242530	04
1030	1040		23 1.9248979D	04
1040	1250		23 1.90703220	04
1050	1060		23 1.88886350	04
1069	1070		23 1.8704252D	04
1070	1080		23 1.8517490D	04
1080	1090		23 1.832865 0D	04
1090	1100	9.9961476D	1.81380160	04
1100	1110	9.98056750	22 1.7945858 D	04
1110	1120	9.9623403D	22 1.7752430D	04
1120	1130	9.9415828D	1.75579720	04
1130	1140			04
1140	1150			04
1150	1160			04
1160	1170			04
1170	1180			04
1180	1190			04
1190	1200			04
1200	1210			04
1217	1220			04
1220	1230			04
1230	1240			04
1240	1250			04
1250	1260			04
1269 1270	1270 1280			04
1280	1290			04
1290	1300			04
1300	1310			04
1300	. ,	7.2.200007070		y T

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$.

T =	35	00	٥K
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$\lambda_{ extbf{min}}$	$\lambda_{ exttt{max}}$	Qo,Δλ	No, Al
×10 ⁻⁹ m	×10 ⁻⁹ m	Quanta s ⁻¹ m ⁻² sr ⁻	
1310	1320	9.19938480 22	
1320	1330	9.1478914D 22	
1330	1340	9.0956379D 22	
1340	1350	9.0426800D 22	
1350	1360	8.9890709D 22	
1369	1370	8.9348618D 22	
1370	1380	8.8801019D 22	
1380	1390	8.8248384D 22	
1390	1400	8.7691164D 22	
1400	1410	8.7129795D 22	
1410	1420	8.6564691D 22	
1420	1430	8.5996251D 22	
1430	1440	8.5424855D 22	
1440	1450	8.4850869D 22	
1450	1460	8.4274642D 22	
1 60	1470	8.36965070 22	
1470	1480	8.3116784D 22	
1480	1490	8.25357780 22	
1490	1500	8.1953778D 22	
1500	1510	8.1371064D 22	1.0742480D 04
1510	1520	8.0787900D 22	1.0595092D 04
1520	1530	8.02045380 22	1.0449611D 04
1530	1540	7.9621220D 22	1.03060320 04
1540	1550	7.9038174D 22	1.0164345D 04
1550	1560	7.8455619D 22	1.0024544D 04
1560	1570	7.7873763D 22	9.8866186D 03
1570	1580	7.7292803D 22	
1580	1 590	7.6712927D 22	
1590	1600	7.6134313D 22	
1600	1610	7.5557130D 22	
1610	1620	7.4981538D 22	
1620	1630	7.4407690D 22	
1630	1640	7.3835729D 22	
1640	1650	7.3265791D 22	
1650	1660	7.2698006D 22	
1660	1670	7.2132494D 22	
1670	1680	7.1569371D 22	
1680	1690	7.10087440 22	
1690	1700	7.0450715D 22	
1700	1710	6.9895380D 22 6.9342829D 22	
1710	1720		
1720 1730	1730 1740	6.8793146D 22 6.8246410D 22	
1740	1750	6.7702695D 22	
1750	1760	6.7162071D 22	
1760	1770	6.6624600D 22	
1770	1780	6.6090343D 22	
1780	1790	6.5559356D 22	
1793	1 800	6.50316900 22	
1800	1810	6.4907391D 22	

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$.

T = 3500°K

$\lambda_{\texttt{min}}$	$\lambda_{ exttt{max}}$	$Q_{O,\Delta\lambda}$	$N_{O,\Delta\lambda}$
×10 ⁻⁹ m	$\times 10^{-9}$ m	Quanta $s^{-1} m^{-2} sr^{-1}$	$W m^{-2} sr^{-1}$
1810	1820	6.3986504D 22	7.00458210 03
1820	1830	6.3+69069D 22	6.9098674D 03
1830	1840	6.2955122D 22	6.8165628D 03
1840	1850	6.24446970 22	6.72464880 03
1850	1860	6.1937822D 22	6.63410620 03
1860	1870	6.1434527D 22	6.5449158D 03
1870	1880	6.0934834D 22	6.4570585D 03
1882	1890	6.0438765D 22	6.3705155D 03
1890	1900	5.9946340D 22	6.28526780 03
1900	1910	5.9457573D 22	6.2012967D 03
1910	1920	5.8972480D 22	6.1185837D G3
1920	1930	5.8491072D 22	6.0371105D 03
1930	1940	5.8013359D 22	5.9568587D 03
1940	1950	5.7539347D 22	5.8778102D 03
1950	1960	5.7069042D 22	5.79994730 03
1960	1970	5.6602448D 22	5.7232520D 03
1970	1980	5.6139567D 22	5.6477069D 03
1980	1990	5.5680400D 22	5.5732946D 03
1990	2000	5.52249430 22	5.4999980D 03
2000	2010	5.4773194D 22	5.42779990 03

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{O_1, \Lambda\lambda}$ and Radiance $N_{O_1, \Lambda\lambda}$.

 $T = 3500^{\circ} K$

λ_{\min}	λ_{\max}	Qo, Ax	No, Ax
×10 ⁻⁹ m	×10 ⁻⁹ m	Quanta $s^{-1} m^{-2} sr^{-1}$	$W m^{-2} sr^{-1}$
2000	2100	5.28011900 23	5.1202203D 04
2100	2200	4.86487710 23	4.4979745D 04
2200	2300	4.48471937 23	3.9620715D 04
2300	2400	4.1375600D 23	3.4997185D 04
2400	2500	3.82101230 23	3.09996790 04
2500	2600	3.53259540 23	2.7535165D 04
2600	2700	3.26986200 23	2.4524417D 04
2700	2800	3.03047410 23	2.19024510 04
2800	2900	2.81224320 23	1.9611662D 04
2900	3000	2.61314930 23	1.76051950 04
3000	3200	4.6965046D 23	3.01343720 04
3200	3400	4.08678770-23	2.46302130 04
3400	3600	3.5743175D 23	2.0308738D 04
3600	3800	3.1413923D 23	1.6882698D 04
3800	4000	2.77377250 23	1.4141515D 04
4000	4200	2.46000510 23	1.1929278D 04
4200	4400	2.1908598D 23	1.0129402D C4
4400	4600	1.95887270 23	8.6539604D 03
4600	4800	1.7579836D 23	7.4355671D 03
4830	5000	1.5832498D 23	6.4229352D 03
5000	5500	3.33066340 23	1.2638861D 04
5500	6000	2.6328505D 23	9.11825900 03
5000	6500	2.11573500 23	6.7389379D 03
6500	7000	1.7248409D 23	5.0855870D 03
7000	7500	1.4241220D 23	3.9085201D 03
7500	8000	1.18913640 23	3.0525093D 03
8000	8500	1.00293900 23	2.41815610 03
8500	9000	8.53544789 22	1.9401214D 03
9000	9500	7.3232185D 22	1.57443910 03
9500	10000	6.32950100 22	1.2908980D 03
10006	11000	1.03286225 23	1.9600465D 03
11000	12000	8.00030350 22	1.3855424D 03
12000	13000	6.32160350 22	1.00686630 03
13000	14000	5.03111480 22	7.49127760 02
14000	15000	4.1448154D 22	5.68811270 02
15000	10000	3.4249690D 22	4.39517120 02

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $\mathbb{Q}_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$.

T = 4000°K

Amin	$\lambda_{ extbf{max}}$	Qo, Δλ	No, A
×10 ⁻⁹ m	$\times 10^{-9}$ m	Ovanta s^{-1} m^{-2} sr^{-3}	$W m^{-2} sr^{-1}$
300	310	5.2412573D 21	3.4122395D 03
310	320	6,6965430D 21	4.22157050 03
320	330	8.3953158D 21	5.1299575D 03
330	340	1.0346174D 22	6.1336346D 03
340	350	1.2553668D 22	7.2269396D 03
350	360	1.5018310D 22	8.4025898D 03
360	370	1.77367321 22	9.6519858D 03
370	380	2.07019400 22	1.0965525D 04
380	390	2.3903662D 22	1.23329070 04
390	400	2.73287400 22	1.37434270 04
400	41C	3.0961567D 22	1.51862320 04
410	420	3.4784535D 22	1.6650558D 04
420	430	3.9778472D 22	1.8125923D 04
430	440	4.2923073D 22	1.96022880 04
440	450	4.7197298D 22	2°1070192D 04
450	46C	5.15797390 22	2.25208440 04
460	470	5,60489480 22	2.39461910 04
470	480	6.0583728D 22	2.5338962D 04
480	490	6.5163376D 22	2.66926910 04
490	500	6.9767898D 22	2.8001716D 04
500	510	7.4378170D 22	2.92611680 04
510	520	7.8976080D 22	3.0466947D 04
520	530	8.3544627D 22	3.1615683D C4
530	540	8.8067990D 22	3.2704700D 04
540	550	9.25315790 22	3.3731964D 04
550	560	9.6922056D 22	3.4696037D 04
560	570	1.01227340 23	3.5596025D 04
570	580	1.05436580 23	3.6431525D 04
580	590	1.09540170 23	3.7202576D 04
590	600	1.1352966D 23	3.79096070 04
600	610	1.17397730 23	3.85533910 04
610	620	1.21138170 23	3.9135001D 04
620	630	1.24745750 23	3.9655765D 04
630	640	1.28216240 23	4.0117230D 04
640	650	1.31546290 23	4.05211210 04
650	66C	1.34733390 23	4.0869313D 04
660	670	1.3777578D 23	4.1163798D 04
670	580	1.4067244D 23	4.1406658D C4
680	690	1.4342297D 23	4.16000410 04
690	700	1.4602758D 23	4.1746137D 04
700	710	1.49486970 23	4.1847163D 04
710	720	1.5080236D 23	4.1905344D 04
720	730	1.5297536D 23	4.1922895D 04
730	740	1.5500797D 23	4.19020160 04
740	750	1.56902510 23	4.18448710 04
750	760	1.58661580 23	4.17535900 04
760	770	1.60288040 23	4.1630250D 04
775	780	1.6178495D 23	4.1476879D 04
780	790	1.6315555D 23	4.1295444D 04
790	800	1.64403220 23	4.10878480 04
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R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$. $T = 4000^{\circ}K$

		1 - 4000 K			
λ_{\min}	$\lambda_{\mathtt{max}}$	$Q_{O,\Delta\lambda}$		$N_{O,\Delta\lambda}$	
$\times 10^{-9}$ m	×10 ⁻⁹ m	Quanta $s^{-1} m^{-2}$	sr ⁻¹	$\mathrm{W}\;\mathrm{m}^{-2}\;\mathrm{sr}^{-1}$	
800	810	1.6553146D	23	4.0855929D	04
810	820	1.66543840	23	4.0601458D	04
820	830	1.6744403D	23	4.03261330	04
830	840	1.6823573	23	4.00315860	04
840	850	1.6892265D	23	3.9719373D	04
850	860	1.6950853D	23	3.93909830	04
860	870	1.69997110	23	3.9047833D	04
870	880	1.70392080	23	3.8691271D	04
880	890	1.7069714D	23	3.8322578D	04
890	90 C	1.7091590D	23	3.7942968D	94
900	910	1.71051970	23	3.7553589D	04
910	920	1.7110886D	23	3.7155529D	04
920	930	1.7109004D	23	3.67498120	04
930	940	1.70998910	23	3.63374040	94
940	950	1.7083876D	23	3.5919216D	04
950	960	1.70612850	23	3.54961020	04
960	970	1.70324320	23	3.5068864D	04
970	980	1.6997624D	23	3,4638254D	04
980	990	1.6957160D	23	3.4204977D	04
990	1000	1.6911328D	23	3.3769690D	04
1000	1010	1.68604090	23	3.33330080	04
1010	1020	1.68046740	23	3.2895504D	04
1020	1030	1.6744386D	23	3.24577100	04
1030	104C	1.66797980	23	3.2020121D	04
1040	1050	1.6611156D	23	3.1583198D	04
1050	1060	1.6538694D	23	3.1147364D	04
1060	1070	1.64626410	23	3.07130150	04
1070	1080	1.6383215D	23	3.0280512D	04
1080	1090	1.63006270	23	2.98501910	04
1090	1100	1.62150780	23	2.94223580	94
1100	1110	1.61267640	23	2.89972960	04
1110	1120	1.60358710	23	2.85752620	04
1120	1130	1.59425780	2.3	2.81564910	04
1130	1140	1.5847055D	23	2.77411980	04
1140	1150	1.5749468D	23	2.73295750	04
1150	1160	1.56499730	23	2.69217990	C4

1170

1180

1190

1200

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1300 1310

1160 1170

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1300

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$.

T =	40	00)°K
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$\lambda_{ exttt{min}}$	$\lambda_{ exttt{max}}$	Qo, Δλ	$N_{O,\Delta\lambda}$
×10 ⁻⁹ m	×10 ⁻⁹ m	Quanta s^{-1} m^{-2} sr^{-1}	$W m^{-2} sr^{-1}$
1310	1320	1.3902853D 23	2.10063340 04
1320	1330	1.37891660 23	2.0677318D 04
1330	1340	1.3675432D 23	2.03531590 04
1340	1350	1.3561710D 23	2.0033839D 04
1350	1360	1.34480600 23	1.9719338D 04
1360	1370	1.3334536D 23	1.94096280 04
1370	1380	1.32211900 23	1.91046800 04
1380	1390	1.3108070D 23	1.8804461D 04
1390	1400	1.2995224D 23	1.85089340 04
1400	1410	1.2882693D 23	1.8218062D 04
1410	1420	1.27705200 23	1.7931802D 04
1420	1430	1.26587420 23	1.76501110 04
1430	1440	1.25473950 23	1.7372944D 04
1440	1450	1.24365140 23	1.7100253D 04
1450	1460	1.23261290 23	1.6831988D 04
1460	1470	1.22162720 23	1.65681010 04
1470	1480	1.2106969D 23	1.6308539D 04
1480 1490	1490 1500	1.1998247D 23 1.1890129D 23	1.60532490 04
1500	1510	1.17826380 23	1.5802178D 04 1.5555271D 04
1510	1520	1.16757950 23	1.53124740 04
1520	1530	1.15696200 23	1.50737300 04
1530	1540	1.14641300 23	1.4838984D 04
1540	1550	i.1359341D 23	1.46081790 04
1550	1560	1.12552700 23	1.4381259D 04
1560	1570	1.11519290 23	1.4158167D 04
1570	158C	1.10493330 23	1.3938846D 04
1580	1590	1.09474910 23	1.37232400 04
1590	1600	1.0846416D 23	1.35112910 04
1600	1610	1.0746116D 23	1.3302944D 04
16.7	1620	1.0646601D 23	1.30981410 04
1620	1630	1.05478770 23	1.2896827D 04
1630	1640	1.04499510 23	1.2698946D 04
1640	1650	1.0352831D 23	1.25044430 04
1650	1560	1.02565190 23	1.23132620 04
1660	1670	1.0161022D 23	1.21253490 04
1670	1680	1.0066343D 23	1.1940650D 04
1680	1690	9.9724 470 22	1.17591120 04
1690 1700	1700	9.8794496D 22 9.7872397D 22	1.1580680D 04
1710	1710 1720		1.14053030 04
1720	1730	9.6958561D 22 9.6052997D 22	1.1232929D 04 1.1063506D 04
1730	1740	9.51557050 22	1.08969830 04
1740	1750	9.42666850 22	1.07333100 04
1750	1760	9.3385926D 22	1.0572439D 04
1760	1770	9.2513420D 22	1.04143190 04
1770	178C	9.16491510 22	1.0258903D 04
1780	179C	9.0793099D 22	1.01061420 04
1790	1800	8.99452430 22	9.95599150 03
1800	1810	9.9105554D 22	9.8084033D 03

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$.

$T = 4000^{\circ} K$

$\lambda_{ exttt{min}}$	$\lambda_{ exttt{max}}$	$Q_{O,\Delta\lambda}$	$N_{O,\Delta\lambda}$
$\times 10^{-9}$ m	$\times 10^{-9}$ m	Quanta $s^{-1} m^{-2} sr^{-1}$	$W m^{-2} s r^{-1}$
1810	1820	8.8274005D 22	9.6633326D 03
1820	1830	8.7450564D 22	9.5207344D 03
1830	1840	8.6635196D 22	9.3805645D 03
1840	1850	8.5827864D 22	9.24277940 03
1850	1860	9.5028527D 22	9.1073363D 03
1860	1870	8.4237143D 22	8.9741930D 03
1870	1880	8.3453670D 22	8.8433081D 03
1880	1890	8.267806CD 22	8.7146408D 03
1890	1900	8.1910266D 22	8.58815090 03
1900	1910	8.1150238D 22	8.4637990D 03
1910	1920	8.0397925D 22	8.3415463D 03
1920	1930	7.9653276D 22	8.2213547D 03
1930	1940	7.89162350 22	8.1031867D 03
1940	1950	7.81867470 22	7.9870055D 03
1950	1960	7.7464758D 22	7.8727748D 03
1960	1970	7.6750209D 22	7.7604591D 03
1970	1980	7.6043043D 22	7.6500235D 03
1980	1990	7.53432000 22	7.5414336D C3
1990	2000	7.46506210 22	7.4346558D 03
2000	2010	7.3965246D 22	7.3296569D 03

R.K.H. Gebel. Blackbody functions. Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$.

T = 4000°K

$\lambda_{ exttt{min}}$	$\lambda_{ exttt{max}}$	$Q_{O,\Delta\lambda}$		$N_{O,\Delta\lambda}$
$\times 10^{-9}$ m	$\times 10^{-9}$ m	Quanta $s^{-1} m^{-2}$	sr ⁻¹	$W m^{-2} sr^{-1}$
2000	2100	7.09968600	23	6.8849523D 04
2100	2200	6.4924004D	23	5.9937053D 04
2200	±300	5.92740470	23	5.2367765D 04
2300	2400	5.42850657	23	4.5917680D 04
2400	2500	4.97985710	23	4.0402201D 04
2500	2600	4.57606560	23	3.56692740 04
2600	2700	4.21224120	23	3.1593564D 04
2700	2300	3.88349250	23	2.8071586D 04
2800	2900	3.58740390	23	2.5017708D 04
2900	3000	3.31899990	23	2.2360883D 04
000د	3200	5.93050420	23	3.8053661D 04
3200	3400	5.12473360	23	3.0895706D 04
3400	3600	4.45493790	23	2.5312976D 04
000د	2800	3.89447027	23	2.09304170 04
3800	4000	3.42246980	23	1.74490990 04
4000	4200	3.02252570	23	1.4657341D 04
4200	4400	2.69165290	23	1.23987480 04
4400	4630	2.38951410	23	1.35564650 04
4600	4800	2.13782757	23	9.0422493D 03
4800	5000	1.91991649	23	7.7887969D 03
5000	5500	4.02186100	23	1.5262448D C4
005د	000ن	3.16250219	23	1.09529600 04
6000	5500	2.53030250	23	3.05961140 03
6500	7000	2.05527530	23	6.05997790 03
7000	7533	1.69156380	23	4.5428683D 03
7500	8000	1.40874290	23	3.61628710 03
8000	8500	1.19538370	23	2.85807470 03
3500	4000	1.00674340	23	2.2883653D C3
9000	9500	8.62193820	22	1.3536687D 03
9500	10000	7.43992570	22	1.5173784D C3
10000	1100	.21155920	23	2.2992048D 03
11000	12000	J. 3619962D	22	1.6213943D 03 1.1759096D 03
12000	13000	7.38295160	22	••••
13000 14000	14000 15000	5.92413750 4.8255396D	22	8.7342608D 02 6.6223512D 02
15000		3.98250200	22	5.11183310 02
13000	1:000	3. 402 30200	2 2	3.11123310 05

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$.

T = 4500°K

$\lambda_{ exttt{min}}$	$\lambda_{ exttt{max}}$	$Q_{O,\Delta\lambda}$	$N_{O,\Delta\lambda}$
$\times 10^{-9}$ m	×10 ⁻⁹ m	Quanta $s^{-1} m^{-2} sr^{-1}$	
300	310	1.94186840 22	1.26437130 04
310	320	2.38022010 22	1.50067500 04
320	330	2.8700605D 22	1.75392010 04
330	340	3.40979830 22	2.02164630 04
340	350	3.9970070D 22	2.30119730 04
350	360	4.6285411D 22	2.5898135D 04
360	370	5.30066280 22	2.88471510 04
370	380	6.0091695D 22	3.1831726D 04
380	390	6.7495205D 22	3.48256500 04
390	400	7.5169547D 22	3.78042630 04
490	410	8.3065991D 22	4.0744788D 04
410	420 430	9.11356520 22 9.93303190 22	4.3626570D 04 4.6431213D 04
420 430	440	9.9330319D 22 1.0760316D 23	4.6431213D 04 4.9142641D 04
440	450	1.15909290 23	5.1747095D 04
450	460	1.24205240 23	5.42330740 04
460	470	1.3245425D 23	5.6591236D 04
470	480	1.40616570 23	5.8814275D 04
480	490	1.48659570 23	6.0896769D 04
490	500	1.56552830 23	6.2835023D 04
500	510	1.64269150 23	6.4626900D 04
510	520	1.7178449D 23	6.6271657D 04
520	530	1.79077940 23	6.7769777D 04
530	540	1.86131540 23	6.91228130 04
540	550	1.9293016D 23	7.03332380 04
550	560	1.9946135D 23	7.1404301D 04
560	570	2.05715150 23	7.2339899D 04
570	580	2.11683930 23	7.3144459D 04
580	590	2.17362170 23	7.3822829D 04
590	600	2.22746310 23	7.4380180D 04
600	610	2.27834530 23	7.4821921D 04
610	620	2.32626650 23	7.5153623D 04
620 630	630	2.3712385D 23 2.4132861D 23	7.5380952D 04 7.5509611D 04
640	640 650	2.45244510 23	7.5545292D 04
650	660	2.4887609D 23	7.5493631D 04
660	670	2.52228720 23	7.5360175D 04
670	680	2.55308510 23	7.5150354D 04
680	690	2.59122130 23	7.4869452D 04
690	700	2.6067679D 23	7.4522593D 04
700	710	2.62780060 23	7.4114724D 04
710	72 0	2.6503987D 23	7.36506020 04
720	73C	2.6686437D 23	7.31347920 04
730	740	2.6846189D 23	7.2571655D 04
740	750	2.6984086D 23	7.1965348D 04
750	760	2.71C098CD 23	7.1319824D 04
760	770	2.71977220 23	7.06388340 04
770	780	2.7275159D 23	6.9925924D 04
780	790	2.7334135D 23	6.91844450 04
790	900	2.7375480D 23	6.8417555D 04

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$. T = 4500°K

		1 - 4500 K	
$\lambda_{ exttt{min}}$	$\lambda_{ exttt{max}}$	Qo,Δλ	$N_{O,\Delta\lambda}$
$\times 10^{-9}$ m	$\times 10^{-9}$ m	Quanta $s^{-1} m^{-2} sr^{-1}$	$W m^{-2} sr^{-1}$
800	810	2.74000130 23	6.7628222D 04
810	320	2.74C8540D 23	6.6819234D 04
820	830	2.7401848D 23	6.5993202D 04
830	840	2.7380705D 23	6.51525690 04
840	850	2.7345861D 23	6.4299615D 04
850	860	2.72980450 23	6.3436466D 04
860	870	2.72379640 23	6.25651010 04
870	880	2.7166303D 23	6.1687355D 04
880	890	2.70837240 23	6.0804932D 04
890	900	2.6990865D 23	5.9919408D 04
900	910	2.68883450 23	5.9032240D 04
910	920	2.6776756D 23	5.8144770D 04
920	930	2.6556669D 23	5.7258234D 04
930	940	2.6528632D 23	5.6373767D 04
940	950	2.63931710 23	5.54924100 04
950	960	2.6250790D 23	5.4615112D 04
960	970	2.6101971D 23	5.3742741D 04
970	98C	2.5947176D 23	5.2876C86D 04
980	990	2.5786846D 23	5.2015862D 04
990	1000	2.5621401D 23	5.1162716D 04
1000	1010	2.54512430 23	5.03172300 04
1013	1020	2.5276756D 23	4.9479927D 04
1020	1030	2.5098302D 23	4.8651274D 04
1030	1040	2.49162290 23	4.7831685D 04
1040	1050	2.4730867D 23	4.7021529D 04
1050	1060	2.4542529D 23	4.6221125D 04
1060	1070	2.43515120 23	4.5430755D 04
1070	1080	2.4158099D 23	4.4650661D 04
1080	1090	2.3962557D 23	4.38810470 04
1090	1100	2.37651390 23	4.3122088D 04
1100	1110	2.35660860 23	4.23739240 04
1110	1120	2.33656250 23	4.16366710 04
1120	1130	2.3163970D 23	4.0910416D 04
1130	1140	2.2961324D 23	4.0195224D 04 3.9491136D 04
1140 1150	1150	2.2757878D 23 2.2553813D 23	3.9491136D 04 3.8798176D 04
1160	1160 1170	2.2553813D 23 2.2349300D 23	3.8116346D 04
1170	1180	2.21444970 23	3.7445634D 04
1180	1190	2.1939557D 23	3.6786011D 04
1190	1200	2.17346210 23	3.61374340 04
1200	1210	2.15298220 23	3.5499848D 04
1210	1220	2.1325285D 23	3.4873187D 04
1220	1230	2.1121128D 23	3.4257371D 04
1230	1240	2.0917459D 23	3.36523160 04
1240	1250	2.07143830 23	3,30579250 04
1250	1260	2.05119950 23	3.2474096D 04
1260	1270	2.0310384D 23	3.19007190 04
1270	1280	2.0109635D 23	3.1337678D 04
1280	1290	1.9909824D 23	3.0784852D 04
1290	1300	1.97110250 23	3.0242116D 04
1300	1310	1.95133050 23	2.97093400 04

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{0.\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$.

Т	=	4	5	U	U	٥	K
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$\lambda_{ exttt{min}}$	$\lambda_{ exttt{max}}$	Q o,Δλ	$N_{O,\Delta\lambda}$
×10 ⁻⁹ m	×10 ⁻⁹ m	Quanta $s^{-1} m^{-2} sr^{-1}$	$W m^{-2} sr^{-1}$
1310			
1320	1320 1330	1.9316726D 23 1.9121345D 23	2.9186391D 04 2.8673133D 04
1330	1340	1.89272150 23	2.81694270 04
1340	1350	1.8734387D 23	2.76751330 04
1350	1360	1.8542904D 23	2.7190107D 04
1360	1370	1.8352808D 23	2.67142070 04
1370	1380	1.8164136D 23	2.62472880 04
1390	1390	1.7976924D 23	2.57892050 04
1390	1400	1.77912010 23	2.5339812D 04
1400	1410	1.7606997D 23	2.4898962D 04
1410	1420	1.7424337D 23	2.4466512D 04
1420	1430	1.7243243D 23	2.40423150 04
1430	1440	1.70637350 23	2.3626227D 04
1440	1450	1.6885832D 23	2.32181030 04
1450	1460	1.6709548D 23	2.28178010 04
1460	1470	1.6534897D 23	2.24251790 04
1470	1480	1.63618910 23	2.2040096D 04
1480	1490	1.6190538D 23	2.1662412D 04
1490	1500	1.60208470 23	2.1291988D 04
1500 1510	1510 1520	1.5852824D 23	2.09286890 04
1520	1530	1.5686473D 23 1.5521797D 23	2.0572379D 04 2.0222925D 04
1530	1540	1.53587970 23	2.0222925D 04 1.98801940 04
1540	1550	1.51974750 23	1.9544056D 04
1550	1560	1.50378290 23	1.9214384D 04
1560	1570	1.4879858D 23	1.8891051D 04
1570	1580	1.4723557D 23	1.8573931D 04
1580	1590	1.45689240 23	1.82629030 04
1590	1600	1.44159530 23	1.7957846D 04
1600	1610	1.4264638D 23	1.7658641D 04
1610	1620	1.41149730 23	1.7365170D 04
1950	1630	1.39669510 23	1.7077320D 04
1630	1640	1.3820562D 23	1.6794976D 04
1640	1650	1.3675800D 23	1.6518029D 04
1650	1660	1.3532653D 23	1.6246370D 04
1660	1670	1.33911130 23	1.5979890D 04
1670	1680	1.32511690 23	1.5718485D 04
1680	1690	1.31128090 23	1.54620520 04
1690	1700	1.2976024D 23	1.5210489D 04
1700	1710	1.2940801D 23	1.4963698D 04
1710 1720	1720 1730	1.27071270 23	1.47215810 04
1730	1740	1.2574992D 23 1.2444381D 23	1.44840420 04
1740	1750	1.2315283D 23	1.4250988D 04 1.4022326D 04
1750	1760	1.2187683D 23	1.37979670 04
1760	1770	1.2061569D 23	1.35778230 04
1770	1780	1.19369270 23	1.3361807D 04
1780	1790	1.18137420 23	1.31498340 04
1790	1800	1.16920020 23	1.29418210 04
1800	1810	1.15716920 23	1.27376880 04
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R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$.

T = 4500°K

$\lambda_{ exttt{min}}$	λ_{max}	$Q_{O_{J}\Delta\lambda}$	No.Ax
$\times 10^{-9}$ m	×10 ₋₈ m	Quanta s^{-1} m^{-2} sr^{-1}	$W m^{-2} sr^{-1}$
1810	1820	1.14527980 23	1.25373540 04
1820	1830	1.1335305D 23	1.23407410 04
1830	1940	1.12192000 23	1.21477730 04
1840	1850	1.114.467D 23	1.19583750 04
1850	1860	1.0951093D 23	1.1772+75D 04
1860	1870	1.0379062D 23	1.1589999D 04
1870	1880	1.0768361D 23	1.14108790 04
1880	1890	1.0658975D 23	1.12350450 04
1890	1900	1.0550889D 23	1.1062430D 04
1900	1910	1.0444088D 23	1.0892968D 04
1910	1920	1.0338559D 23	1.07265960 04
1920	1930	1.0234287D 23	1.0563249D 04
1930	1940	1.0131258D 23	1.0402866B C4
1940	1950	1.0029456D 23	1.02453870 04
1950	1960	9.9288680D 22	1.00907520 04
1960	1970	9.8294796D 22	9.9389044D 03
1970	1980	9.73127650 22	9.78978680 03
1980	1990	9.6342446D 22	9.6433440D 03
1990	2000	7.5383700D 22	9.4995218D 03
2000	2010	9.4436386D 22	9.35826720 03

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$.

T = 4500°K

λ_{\min}	$\lambda_{ extbf{max}}$	Qo,Δλ	$N_{O,\Delta\lambda}$
×10 ⁹ m	×10 ⁻⁹ m	Quanta s^{-1} m^{-2} sr^{-1}	$W m^{-2} sr^{-1}$
2000	2100	9.03553470 23	8.7625056D 04
2100	2200	8.19406060 23	7.5765158D 04
5300	2300	7.44686820 23	6.57934170 04
2300	2400	6.78251540 23	5.7371796D 04
2400	2500	6.1908445D 23	5.0227908D 04
2500	2500	5.6629215D 23	4.4141670D 04
2600	2700	5.19093470 23	3.8934662D 04
2700	2800	4.7680776D 23	3.4461702D 04
2800	2900	4.3884303D 23	3.0604182D 04
2900	3000	4.0469483D 23	2.7264811D 04
3000	3200	7.1994370D 23	4.6197290D 04
3200	3400	6.18862970 23	3.7299710D 04
3400	000د	5.3551426D 23	3.0428555D 04
3600	3600	4,66254230 23	2.50587670 04
3800	4000	4.08279760 23	2.0816010D 04
4300	4200	3.59417530 23	1.74296950 04
4200	4400	3.17958980 23	1.4701600D 04
4400	4600	2. 259608D 23	1.24847250 04
4600	4800	2.5223665D 23	1.06687970 04
4800	30 00	2.26041250 23	9.1701994D 03
500C	>500	4.7199482D 23	1.7912226D 04
5500	0000	3.69655260 23	1.2802917D C4
6003	6500	2.9477830D 23	9.38957450 03
6500	7000	2.38769967 23	7.0402420D 03
7000	7500	1.96060180 23	5.3819520D 03
750C	6000	1.62935220 23	4.1826409D C3
8000	ಶ 500	1.3685635D 23	3.2997666D 03
8500	9000	1.16049067 23	2.6378569D 03
9000	9500	9.92481#6D 22	2.13379330 63
4500	15000	8.55355220 22	1.74451210 03
10000	11000	1.39070270 23	2.63921170 03
11000	12000	1.07265220 23	1.85773750 03
12000	13000	8.4459672D 22	1.34525070 03
13000	14000	6.7684314D 22	9.9791200D 02
14000	15000	5.50715320 22	7.5578112D 02
15000	16000	4.54067239 22	5.82831350 02

R.K.H. Gebel. Blackbody functions. Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$.

T = 5000°K

$\lambda_{ exttt{min}}$	λ _{max}	Qo, DA	$N_{O,\Delta\lambda}$
$\times 10^{-9}$ m	×10 ⁻⁹ m	Quanta s ⁻¹ m ⁻² sr ⁻¹	$W m^{-2} sr^{-1}$
300	310	5.53746110 22	3.6058377D 04
310	320	6.5658752D 22	4.1399878D 04
320	330	7.67427380 22	4.6901815D 04
330	340	8.8542797D 22	5.25001350 04
340	350	1.00966160 23	5.81330240 04
350	360	1.13914210 23	6.3742350D 04
360	370	1.2728529D 23	6.9274707D 04
370	380	1.4097725D 23	7.46821230 04
380	390	1.5488963D 23	7.9922462D 04
390	400	1.6892535D 23	8.4959582D 04
400	410	1.8299219D 23	8.97632800 04
410	420	1.9700383D 23	9.4309089D 04
420	430	2.1088061D 23	9.8577963D 04
430	440	2.2455002D 23	1.0255587D 05
440	450	2.3794696D 23	1.06233360 05
450	460	2.51013820 23	1.0960507D 05
460	47C	2.63700350 23	1.1266925D 05
470	480	2.75963480 23	1.15427310 05
480	490	2.8776702D 23	1.17883340 05
497	500	2.9908123D 23	1.20043720 05
500	510	3.0988242D 23	1.2191668D 05
510	520	3.2015250D 23	1.23511990 05
520 530	53C	3.2987849D 23	1.2484059D 05
540	540 550	3.3905205D 23 3.4766900D 23	1.25914350 05
550	560	3.4766900D 23 3.5572889D 23	1.26745770 05
560	570	3.6323455D 23	1.27733570 05
570	580	3.7019166D 23	1.27916370 05
580	590	3.76608390 23	1.2790937D 05
590	600	3.82495050 23	1.2772558D 05
600	610	3.8786372D 23	1.27377740 05
610	620	3.92727990 23	1.26878240 05
620	630	3.9710268D 23	1.26239070 05
630	640	4.C100356D 23	1.25471770 05
640	65C	4.04447170 23	1.2458739D 05
650	660	4.07450600 23	1.23596470 05
660	670	4.10031320 23	1.2250905D 05
670	680	4.1220705D 23	2.21334630 05
689	690	4.1399556D 23	1.20082170 05
690	700	4.1541463D 23	1.1876013D 05
700	710	4.1648192D 23	1.17376450 05
710	720	4.17214850 23	1.1593855D 05
720	730	4.1763060D 23	1.1445338D 05
730	740	4.17745970 23	1.12927420 05
740	750	4.17577390 23	1.1136670D 05
750	760	4.1714085D 23	1.09776790 05
760 770	770 790	4.16451870 23	1.08162880 05
7 7 0	780 780	4.1552548D 23	1.06529750 05
780 790	790	4.1437622D 23	1.04881810 05
7 90	800	4.1301808D 23	1.03223130 05

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$. $T=5000^{\circ}K$

$\lambda_{ exttt{min}}$	λ _{max}	$Q_{O,\Delta\lambda}$	$N_{O,\Delta\lambda}$
×10 ⁻⁹ m	$\times 10^{-9}$ m	Quanta $s^{-1} m^{-2}$	sr^{-1} W m ⁻² sr^{-1}
800	810	4.11464540	23 1.01557420 05
810	820		23 9.98881090 04
820	830		23 9.82183070 04
830	840		23 9.6550862D 04
840	85 บั		23 9.4888360D 04
850	96C	4.0120026D	23 9.32331470 04
860	370	3.98727630	23 9.15873460 04
870	880	3.9613920D	23 8.99528070 04
880	890	3.9344434D	23 8.8331430D 04
890	900	3.9065193D	23 8.672457CD 04
900	910		23 8.51336590 04
910	920		23 8.35599090 04
920	93C		23 8.2004393D 04
930	940		23 8.04580 ₄ 9D 04
940	950		23 7.8951694D 04
950	960		23 7.7456032D 04
960	970		23 7.5981664D 04
970	980		23 7.45290940 04
980	990		23 7.3098741D 04
990	1000		7.1690943D 04
1000	1010		7.03059670 04
1010	1020		23 6.8944009D 04
1020	1030		23 6.76052080 04
1030	1040		23 6.6289647D 04
1040	1050		23 6.4997356D 04
1050	1060		23 6.37283240 04
1060 1070	1370 1080		23 6.2482494D 04 23 6.1259776D 04
1089	1090		23 6.00600430 04
1090	1100		23 5.88831400 04
1100	1110		23 5.7728886D 04
1110	1120		23 5,85970740 04
1120	1130		23 5.5487476D 04
1130	1140		23 5.4399846D 04
1140	1150	3.0735126D	
1150	1160	3.0396384D	
1160	1170		23 5.12660720 04
1170	1180		23 5.02635560 04
1180	1190	2.9391997D	23 4.9281569D 04
1190	1200	2.90615830	23 4.83197950 04
1200	1210	2.9733550D	23 4.73779110 04
1210	1220	2.8407998D	23 4.6455588D 04
1220	1230	2.8085018D	23 4.5552495D 04
1230	1240	2.77646920	23 4.4668297D 04
1240	1250		23 4.38026550 04
1250	1260		23 4.2955234D 04
1260	1270	2.6820338D	23 4.2125693D 04
1270	1280		23 4.13136950 04
1280	1290		23 4.0518902D 04
1290	1 30C		23 3.9740979D 04
1300	1310	2.56020460	23 3.8979592D 04

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $\psi_{0},_{\Delta\lambda}$ and Radiance $N_{0},_{\Delta\lambda}$.

Т	=	5	00	0	0	(

$\lambda_{ exttt{min}}$	λ	$Q_{O,\Delta\lambda}$	$N_{O,\Delta\lambda}$
-0	λ _{max} ×10 ⁻⁹ m	Quanta $s^{-1} m^{-2} sr^{-1}$	W m ⁻² sr ⁻¹
1310	1320	2.5305043D 23	3.8234409D 04
1320	1330	2.5011125D 23	3.7505102D 04
1330	1340	2.4720314D 23	3.67913470 04
1340	1350	2.4432628D 23	3.6092819D 04
1350	1360	2.41480790 23	3.5409203D 04
1360	1370	2.3866677D 23	3.4740184D C4
1370	1380	2.35884270 23	3.40854510 04
1380	1390	2.33133330 23	3.34447010 04
1390	1400	2.30413950 23	3.2817630D 04
1400	1410	2.27726090 23	3.22039450 04
1410	1420	2.2506970D 23	3.16033520 04
1420	1430	2.2244470D 23	3.1015566D 04
1430	1440	2.19851000 23	3.0440306D 04
1440	1450	2.1728847D 23	2.98772940 04
1450	1460	2.1475697D 23	2.9326259D 04
1460	1470	2.1225636D 23	2.8786934D 04
1470	1480	2.0978645D 23	2.8259059D 04
1489	1490	2.0734706D 23	2.77423770 04
1490	1500	2.04937990 23	2.72366373 04
1500	1510	2.0255903D 23	2.67415930 04
1510	1520	2.0020995D 23	2.6257003D 04
1520	1530	1.9789052D 23	2.5782631D C
1530	1540	1.9560050D 23	2.5318246D 04
1540	1550	1.9333963D 23	2.4863623D 04
1550	1560	1.91107660 23	2.4418538D 04
1560	1570	1.88904320 23	2.39827760 04
1570	1580	1.8672933D 23	2.35561250 04
1580	1590	1.8458242D 23	2.3138377D 04
1590	1600	1.8246330D 23	2.2729330D 04
1600	1610	1.80371690 23	2.2328785D 04
1610	1620	1.7830730D 23	2.1936550D 04
1620	1630	1.7626983D 23	2.1552433D 04
1630	1640	1.74258990 23	2.11762510 04
1640	1650	1.7227448D 23	2.08078230 04
1650	1660	1.70315990 23	2.04()972D 04
1660 1670	1670	1.6838323D 23 1.6647590D 23	2.0093526D 04
	1690		1.97473150 04
1680 1690	1690	1.6459368D 23	1.94081779 04
1700	1700	1.62736290 23	1.90759480 04
1710	1710	1.60903400 23	1.87504740 04
	1720	1.59094720 23	1.84315990 04
1720	1730	1.5730995D 23	1.81191760 04
1730 1740	1740 1750	1.5554879D 23	1.78130570 04
1750	1760	1.53810930 23	1.7513100D 04
1760	1770	1.52C9607D 23	1.7219166D 04
1770	1780	1.5040391D 23 1.4873416D 23	1.6931118D 04
1780	1790		1.6648824D 04
1790	1800	1.47086530 23	1.63721540 04
		1.4546071D 23	1.61009830 04
1800	1810	1.4305642D 23	1.5835185D 04

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$.

Т	=	5	n	n	n	0	K
		•	•	v	v		n

$\lambda_{m,in}$	$\lambda_{ exttt{max}}$	Qo, Δλ	$N_{O,\Delta\lambda}$
$\times 10^{-9}$ m	$\times 10^{-9}$ m	Quanta $s^{-1} m^{-2} sr^{-1}$	$W m^{-2} sr^{-1}$
1810	1820	1.42273370 23	
1820	1830	1.40711270 23	
1830	1840	1.3916984D 23	
1840	1850	1.37648790 23	
1850	1860	1.3614785D 23	
1860	1870	1.3466673D 23	
1870	1880	1.33205170 23	
1880	1890	1.3176289D 23	1.4115319D 04
1890	1900	1.30339610 23	1.38884120 04
1900	1910	1.2893509D 23	1.36658940 04
1910	1920	1.2754905D 23	1.3447667D 04
1920	1930	1.2618123D 23	1.32336370 04
1930	1940	1.2483138D 23	1.30237120 04
1940	1950		1.28178010 04
1950	1960		1.26158170 04
1960	1970		1.24176730 04
1970	1980	1.20887080 23	1.22232870 04
1980		1.1960658D 23	1.20325750 04
1990	1990	1.18342790 23	1.1845460D 04
2000	2000	1.17095500 23	1.1661861D 04
2000	2010	1.1586445D 23	1.1481705D 04

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$.

T = 5000°K

			1.0		
λ_{\min} λ_{\max}		Qo,Δλ	$N_{O,\Delta\lambda}$		
×10 ⁻⁹	m ×10 ₋₈ u	1 Quanta $s^{-1} m^{-2} sr^{-1}$	$\mathrm{W}\mathrm{m}^{-2}\mathrm{sr}^{-1}$		
2000	2100	1.10581510 24	1.07242470 05		
2100	2200	9.9755771D 23	9.2239466D 04		
2200	2300	9.02303040 23	7.9720211D 04		
2300	2400	8.18289540 23	6.9218302D 04		
2400	2500	7.4400284D 23	6.03636200 04		
2500	2600	6.7814520D 23	5.2861043D 04		
2600	2700	6.1960605D 23	4.6474074D 04		
2700	2800	5.6743513D 23	4.10122310 04		
2800	2900	5.2081873D 23	3.6321311D 04		
2900	3000	4.79059140 23	3.2275851D 04		
3000	3200	8.49353940 23	5.4502560D 04		
3200	3400	7.2711582D /:3	4.3825108D 04		
3400	3600	6.2693717D 23	3.5623892D 04		
3600	3800	5.4413267D 23	2.9244722D 04		
3800	4000	4.7514178D 23	2.4225222D 04		
4000	4200	4.17232260 23	2.02335730 04		
4200	4400	3.68287470 23	1.7028264D 04		
4400	4600	3.2665278D 23	1.4431196D 04		
4600	4800	2.91023420 23	1.2309429D 04		
4800	5000	2.6036208D 23	1.0562609D 04		
5000	55 0 0	5.4229080D 23	2.0580527D 04		
5500	5000	4.23370870 23	1.4663646D 04		
6000	5500	3.3673174D 23	1.0726098D 04		
6500	7000	2.72152550 23	8.0246430D 03		
7000	7500	2.2305224D 23	6.1219350D 03		
7500	9000	1.85056680 23	4.7508065D 03		
8000	8500	1.55225990 23	3.7427051D 03		
8500	9000	1.3146232D 23	2.9882251D 03		
9000	9500	1.12306210 23	2.4145466D 03		
9500	10000	9.66942650 22	1.9721045D 03		
10000	11000	1.57015950 23	2.9798142D 03		
11000	12000	1.2093036D 23	2.09442540 03		
12000	13000	9.5103925D 22	1.5148006D 03		
13000	14300	7.61361650 22	1.12252940 03		
14000	15000	6.1993902D 22	8.4941274D 02		
15000	15000	5.09928910 22	6.5453675D 02		

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{0\,,\Lambda\lambda}$ and Radiance $N_{0\,,\Delta\lambda}$.

T = 5500°K

$\lambda_{ exttt{min}}$	$\lambda_{ exttt{max}}$	$Q_{O,\Delta\lambda}$	$N_{O,\Delta\lambda}$
$\times 10^{-9}$ m	$\times 10^{-9} \text{ m}$	Quanta s^{-1} m^{-2} sr^{-1}	$W m^{-2} sr^{-1}$
300	310	1.30532390 23	8.50055060 04
310	320	1.50629310 23	9.49830550 04
320	330	1.7162883D 23	1.04898700 05
330	340	1.93332450 23	1.14640230 05
340	350	2.1554186D 23	1.24108540 05
350	360	2.3806362D 23	1.33218420 05
360	370	2.60713110 23	1.4189881D 05
370	380	2.8331734D 23	1.50092370 05
380	390	3.0571710D 23	1.57754860 05
390	400	3.27768280 23	1.64854090 05
400	410	3.4934257D 23	1.7136883D 05
410	420	3.7032767D 23	1.77287530 05
420	430	3.9062709D 23	1.8260715D 05
430	440	4.10159610 23	1.87331890 05
440	450	4.2885851D 23	1.9147206D 05
450 460	460 470	4.4667065D 23 4.6355539D 23	1.95042990 05
470	480	4.6355539D 23 4.7948354D 23	1.9896403D 05 2.0055770D 05
480	490	4.9443619D 23	2.02548870 05
490	500	5.08403620 23	2.0406409D 05
500	510	5.21384240 23	2.05131000 05
510	520	5.3338352D 23	2.0577784D 05
520	530	5.4441303D 23	2.06032980 05
5 3 0	540	5.5448956D 23	2.05924620 05
540	550	5.6363427D 23	2.0548049D 05
550	560	5.7187193D 23	2.0472761D 05
560	570	5.7923027D 23	2.03692120 05
570	580	5.85739310 23	2.02399150 05
58C	590	5.9143086D 23	2.0087270D 05
590	600	5.9633804D 23	1.9913560D 05
600	610	6.0049482D 23	1.9720947D 05
610	620	6.03935700 23	1.9511466D 05
620	630	6.06695330 23	1.9287029D 05
630	640	6.0880832D 23	1.90494260 05
640 650	650	6.1030895D 23 6.1123099D 23	1.88003260 05
660	660 670	6.1160756D 23	1.8541278D 05 1.8273723D 05
670	680	6.1147096D 23	1.7998989D 05
680	690	6.1085263D 23	1.77183010 05
690	700	6.0978300D 23	1.7432788D 05
700	710	6.0829146D 23	1.7143483D 05
710	720	6.0640631D 23	1.68513320 05
720	730	6.04154740 23	1.6557197D 05
730	740	6.0156281D 23	1.62618650 05
740	750	5.9865542D 23	1.5966047D 05
750	760	5.9545633D 23	1.5670388D 05
760	770	5.91988200 23	1.53754710 05
770	780	5.8827255D 23	1.50818180 05
780	790	5.8432980D 23	1.4789899D 05
790	800	5.8017933D 23	1.45001320 05

R.K.H. Gebel. Blackbody functions. Blackbody Quantum Radiance $Q_{O\,,\Delta\lambda}$ and Radiance $N_{O\,,\Delta\lambda}$. T = 5500°K

$\lambda_{ exttt{min}}$	$\lambda_{ exttt{max}}$	Q ο,Δλ	$N_{O,\Delta\lambda}$
×10 ⁻⁹ m	×10 ⁻⁹ m	Quanta $s^{-1} m^{-2} sr^{-1}$	$W m^{-2} sr^{-1}$
800	810	5.7583948D 23	1.42128890 05
810	820	5.7132757D 23	1.3928500D 05
820	830	5.6665997D 23	1.3647256D 05
830	840	5.6185210D 23	1.3369410D 05
840	850	5.5691848D 23	1.3095183D 05
850	860	5.51872780 23	1.2824767D 05
860	87C	5.4672784D 23	1.25583230 05
870	38C	5.4149571D 23	1.2295989D 05
880	890	5.3618769D 23	1.2037880D 05
890	900	5.3081436D 23	1.1784089D 05
900	910	5.2538562D 23	1.15346900 05
910	920	5.1991072D 23	1.12897400 05
920	930	5.1439830D 23	1.1049280D 05
930	940	5.0885641D 23	1.08133380 05
940	950	5.0329256D 23	1.05819270 05
950	960	4.9771372D 23	1.0355050D 05
960	970	4.9212638D 23	1.01327010 05
970	980	4.8653657D 23	9.91486260 04
980	990	4.8094986D 23	9.7015098D 04
990	1000	4.75371430 23	9.4926108D 04
1000 1010	1010	4.6980605D 23 4.6425813D 23	9.2881269D 04 9.0880142D 04
1020	1020 1030	4.6425813D 23 4.5873173D 23	8.89222330 04
1030	1030	4.5323060D 23	8.7007009D 04
1040	1050	4.4775816D 23	8.51338970 04
1050	1060	4.4231757D 23	8.33022910 04
1060	1070	4.3691170D 23	8.1511560D 04
1070	1080	4.31543180 23	7.9761048D 04
1080	1090	4.2621439D 23	7.80500810 04
1090	1100	4.20927510 23	7.6377968D 04
1100	1110	4.1568449D 23	7.4744007D 04
1110	1120	4.1048710D 23	7.3147486D 04
1120	1130	4.0533693D 23	7.1587687D 04
1130	1140	4.0023538D 23	7.0063886D 04
1140	1150	3.9518372D 23	6.8575359D 04
1150	1160	3.9018305D 23	6.7121380D 04
1160	1170	3.8523435D 23	6.5701226D 04
1170	1180	3.8033846D 23	6.4314174D 04
1180	1190	3.7549609D 23	6.29595080 04
1190	1200	3.7070787D 23	6.16365170 04
1200	1210	3.6597431D 23	6.03444950 04
1210	1220	3.6129580D 23	5.90827470 04
1220	1230	3.5667268D 23	5.7850582D 04
1230	1240	3.5210518D 23 3.4759347D 23	5.6647320D 04
1240 1250	1250 1260	3.4759347D 23 3.4313764D 23	5.5472291D 04 5.4324835D 04
1260	1270	3.3873772D 23	5.3204302D 04
1270	1280	3.34393679 23	5.21100520 04
1280	1290	3.3010540D 23	5.1041459D 04
1290	1300	3.2587276D 23	4.9997906D 04
1300	1310	3.2169557D 23	4.8978788D 04
		J. L. L. J. J. L. J.	

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance ${\tt Q}_{0\,,\Delta\lambda}$ and Radiance ${\tt N}_{0\,,\Delta\lambda}$.

 $T = 5500^{\circ} K$

$\lambda_{ exttt{min}}$	$\lambda_{ exttt{max}}$	Qo, Ah		$N_{O.\Delta\lambda}$	
$\times 10^{-9}$ m	$\times 10^{-9} \text{ m}$	Quanta $s^{-1} m^{-2}$	sr^{-1}	$W m^{-2} sr^{-1}$	
1310	1320	3.1757360D	23	4.79835120	04
1320	1330	3.1350656D	23	4.70114990	04
1330	1340	3.0949416D	23	4.60621780	04
1340	1350	3.0553604D	23	4.5134993D	04
1350	1360	3.0163183D	23	4.4229399D	04
1360	1370	2.9778113D	23	4.33448620	04
1370	1380	2.93983510	23	4.24808620	04
1380	1390	2.90238520	23	4.1636889D	04
1390	1400	2.86545690	23	4.0812445D	04
1400	141C	2.8290454D	23	4.0007044D	04
1410	1420	2.79314540	23	3.92202120	04
1420	1430	2.75775200	23	3.8451485D	04
1430	1440	2.7228596D	23	3.7700410D	04
1440	1450	2.6884629D	23	3.6966546D	04
1450	1460	2.6545563D	23	3.62494620	04
1460	1470	2.6211342D	23	3.55487400	04
1470	1480	2.58819090	23	3.4863968D	04
1480	1490	2.55572070	23	3.4194748D	04
1490	1500	2.52371760	23	3.35406900	04
1500	1510	2.49217600	23	3.29014150	04
1510	1520	2.46108980	23	3.22765530	04
1520 1530	1530 1540	2.4304532D 2.4002602D	23 23	3.1665744D 3.1068636D	04
1540	1550	2.37050510	23	3.0484887D	04
1550	1560	2.34118170	23	2.9914165D	04
1560	1570	2.3122843D	23	2.93561430	04
1570	1580	2.28380700	23	2.8810506D	04
1580	1590	2.2557437D	23	2.82769470	04
1590	1600	2.22808890	23	2.7755164D	04
1600	1610	2.2008364D	23	2.7244865D	04
1610	1620	2.17398070	23	2.6745767D	04
1620	1630	2.14751600	23	2.62575920	04
1630	1640	2.1214365D	23		04
1640	1650	2.09573650	23		04
1650	1660	2.07041060	23	2.4855941D	04
1660	1670	2.0454530D	23	2.44088300	04
1670	1680	2.02085820	23	2.39713610	04
1680	1690	1.99662090	23	2.35432990	04
1690	1700	1.9727356D	23	2.31244150	04
1700	1710	1.9491968D	23	2.2714483D	04
1710	1720	1.9259995D	23	2.2313287D	04
1720	1730		23		04
1730	1740	1.88060790	23		04
1740	1750	1.85840340	23		04
1750	1760	1.83651960	23		04
1760	1770	1.81495160	23		04
1770	1780	1.7936945D	23		04
1780	1790	1.7727434D	23		04
1790	1800		23		04
1800	1810	1.73174020	23	1.90623630	04

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$.

T = 5500°K

$\lambda_{ exttt{min}}$	$\lambda_{ exttt{max}}$	$Q_{O,\Delta\lambda}$	$N_{O,\Delta\lambda}$
$\times 10^{-9}$ m	$\times 10^{-9}$ m	Quanta s^{-1} m^{-2} sr^{-1}	$W m^{-2} sr^{-1}$
1810	1820	1.71167860 23	1.87377210 04
1820	1830	1.69190420 23	1.8419763D U4
1830	1840	1.6724126D 23	1.8108333D 04
1840	1850	1.65319910 23	1.7803274D 04
1850	1860	1.63425950 23	1.7504437D 04
1860	1870	1.61558930 23	1.7211676D 04
1870	1880	1.5971844D 23	1.6924848D 04
1880	1890	1.5790405D 23	1.6643815D 04
1890	1900	1.5611534D 23	1.6368441D 04
1900	191C	1.54351910 23	1.6098594D 04
1910	1920	1.5261336D 23	1.5834146D 04
1920	1930	1.5089928D 23	1.55749730 04
1930	1940	1.4920930D 23	1.53209520 04
1940	1950	1.4754302D 23	1.5071964D 04
1950	1960	1.4590007D 23	1.48278959 04
1960	1970	1.4428008D 23	1.45886320 04
1970	1980	l.4268268D 23	1.43540640 04
1980	1990	1.4110751D 23	1.4124085D 04
1990	2000	1.3955423D 23	1.3898591D 04
2000	2010	1.3802247D 23	1.3677479D 04

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{0,\Lambda\lambda}$ and Radiance $N_{0,\Lambda\lambda}$. $T = 5500^{\circ}K$

$\lambda_{ exttt{min}}$	$\lambda_{ exttt{max}}$	Qo, Δλ	$N_{O,\Delta}$
×10 ⁻⁹ m	$\times 10^{-9}$ m	Quanta s^{-1} m^{-2} sr^{-1}	$W m^{-2} sr^{-1}$
2000	2100	1.31468330 24	1.27500890 05
2100	2200	1.18100690 24	1.0920383D 05
2200	∠300	1.0642039D 24	9.4025715D 04
2300	2400	9.6182094D 23	8.1360420D 04
2400	2500	8.71790930 23	7.0732238D 04
2500	2600	7.92372170 23	6.1765519D 04
2600	2700	7.2209536D 23	5.4161794D 04
2700	2800	6.59718650 23	4.76824920 04
2800	2400	6.0419000D 23	4.2135799D C4
2900	3000	5.54615860 23	3.7366572D 04
3000	3200	9.80632760 23	6.29278340 04
3200	3400	8.36748890 23	5.04337480 04
3400	3600	7.1939670D 23	4.0878161D 04
3600	3800	6.2280155D 23	3.3473185D 04
3800	4000	5.42614830 23	2.76656020 04
4000	4200	4.7552518D 23	2.3069651D 04
4200	4400	4.18984430 23	1.9372434D 04
4400	4600	3.71012110 23	1.63910410 04
4600	4800	3.3005447D 23	1.39603970 04
4800	000ز	2.94891910 23	1.1963099D 04
5000	5500	6.1294374D 23	2.3262397D 04
5500	6000	4.77313730 23	1.65322570 04
6000	6 500	3.7883533D 23	1.20673890 04
6500	7000	3.0563753D 23	9.0120661D 03
7000	7500	2.50116040 23	6.8647886D 03
7500	90 0 0	2.07249590 23	5.3202942D 03
8000	500	1.73633320 23	4.18555280 03
8500	9000	1.4690368D 23	3.3392326D 03
9000	9500	1.2538554D 23	2.6957580D 03
9500	10000	1.0786939D 23	2.20003110 03
10000	11000	1.74984460 23	3.3208507D 03
11000	12000	1.3460998D 23	2.3313644D 03
12000	000د 1	1.05757720 23	1.6845027D 03
13000	14000	8.4594504D 22	1.24724260 03
14000	15000	6.8720809D 22	9.43106700 02
15000	16000	5.6582309D 22	7.2628390D 02

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{O_1\Delta\lambda}$ and Radiance $N_{O_1\Delta\lambda}$.

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$\lambda_{ exttt{min}}$	$\lambda_{ exttt{max}}$	Qυ,Δλ	$N_{O,\Delta\lambda}$
×10 ⁻⁹ m	×10 ⁻⁹ m	Ouanta $s^{-1} m^{-2} sr^{-1}$	$W m^{-2} sr^{-1}$
300	310		
310	320	2.6676328D 23 3.0095362D 23	1.7373308D 05 1.8978477D 05
320	330	3.3571450D 23	2.05197890 05
330	340	3.7070487D 23	2.19827220 05
340	350	4.05606800 23	2.33557800 05
350	360	4.4013005D 23	2.4630306D 05
360	370	4.740130350 23	2.58002530 05
370	380	5.0703340D 23	2.68619100 05
380	390	5.3898975D 23	2.7813602D 05
390	400	5.89719380 23	2.66554010 05
400	410	5.9908765D 23	2.9388839D 05
410	420	6.26987910 23	3.00166410 05
420	430	6.53339310 23	3.0542483D 05
430	440	6.78084420 23	3.09707720 05
440	450	7.01186790 23	3.13064560 05
450	460	7.22628490 23	3.15548580 05
460	470	7.42407770 23	3.1721534D 05
470	48C	7.60536810 23	3.18121550 05
480	490	7.77039620 23	3.18324080 05
490	500	7.9195010D 23	3.17979200 05
500	510	8.05310320 23	3.16841910 05
510	520	8.171688BD 23	3.15265480 05
520	53C	8.27579550 23	3.1320108D 05
530	540	8.3659999D 23	3.1069748D 05
540	550	8.44290680 23	3.0780091D 05
550	560	8.50713970 23	3.04554930 05
560	570	8.5593324D 23	3.0100C40D 05
570	580	8.6001224D 23	2.97175430 05
580	590	8.63014490 23	2.93115490 05
590	600	9.6500280D 23	2.88853390 05
600	610	8.6603884D 23	2.8441942D 05
610	62C	8.66182870 23	2.7984142D 05
€20	63C	8.6549340D 23	2.75144920 05
630	640	8.6402709D 23	2.7035324D 05
640	650	8.6183849D 23	2.6548762D 05
650	66C	8.5898003D 23	2.6056736D 05
660	670	8.55501890 23	2.5560990D 05
670	680	8.5145195D 23	2.50631000 05
680	690	8.4687584D 23	2.4564484D 05
690	700	8.4181687D 23	2.4066412D 05
700	71C	8.3631612D 23	2.3570017D 05
710	720	8.3041243D 23	2.3076309D 05
720	73C	8.2414249D 23	2,25861830 05
730	740	8.1754085D 23	2.2100426D 05
740	75C	8.1064006D 23	2.16197310 05
750	760	8.0347068D 23	2.1144701D 05
760	770	7.9606138D 23	2.06758580 05
770	78C	7.8843903D 23	2.02136510 05
780	790	7.8062874D 23	1.97584640 05
790	800	7.7265399D 23	1.93106170 05

R.K.H. Gebel. Blackbody functions. Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$.

T = 6000°K

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$\lambda_{ exttt{min}}$	$^{\lambda}$ max	Qo,Δλ	$N_{O,\Delta\lambda}$	
$\times 10^{-9}$ m	×10 ⁻⁹ m	Quanta $s^{-1} m^{-2} s$	${\rm sr}^{-1}$ W m ⁻² sr ⁻¹	
800	810	7.6453670D	23 1.8870378D 0)5
810	820			15
820	830	7.4795468D 2	23 1.8013551D 0)5
830	840	7.39526610	23 1.7597268D 0	15
840	850	7.3102943D	23 1.71892120 0	5
850	86 C	7.2247835D 2	23 1.6789449D 0	15
860	87C	7.1388743D 2	23 1.6398014D 0	5
870	980			5
668	890			5
890	900)5
900	910			15
910	920			15
920	930)5
930	940			5
940	950)5
950	960)5
960	970)5
970	980)5
980	990)5
990	1000			5
1000	1010			5
1010	1020			5
1020	1030) 5
1030	1040			5
1040	1050			5
1050	1060			5
1060	1070			5
1070 1080	1080 1090			4
1090	1100			4
1100	1110			4
1110	1120			4
1120	1130			4
1130	1140			4
1140	1150	4.8970487D 2		4
1150	1160			4
1160	1170			4
1170	1180			4
1180	1190			4
1190	1200			4
1200	1210			4
1210	1220			4
1220	1230			4
1230	1240			4
1240	1250			4
1250	1260			4
1260	1270			4
1270	1280			4
1280	1290			4
1290	1300			4
1300	1310	3.9125943D 2	5.9570060D 0	4

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$.

T = 6000°K

$\lambda_{ exttt{min}}$	λ	$Q_{\Omega,\Delta\lambda}$	N
	λ _{Liax}		$N_0, \Delta\lambda$
×10 ⁻⁹ m	×10 ⁻⁹ m		${\rm sr}^{-1}$ ${\rm W} {\rm m}^{-2} {\rm sr}^{-1}$
1310	1320		23 5.8301430D 04
1320	1330		23 5.7064484D 04
1330	1340		23 5.58583570 04
1340	1350		23 5.4682210D 04
1350	1360		23 5.3535225D 04
1360	1370		23 5.2416605D 04
1370	138C		23 5.13255780 04
1380	1390		23 5.02613920 04
1390	140C		4.92233130 04
1400	1410		4.8210632D 04
1410	1420		4.72226570 04
1420	1430		4.6258716D 04
1430	1440		4.53181570 04
1440	1450		4.44003440 04
1450	1460		4.3504662D 04
1460	1470		23 4.26305110 04
1470	1480		4.1777310D-04
1480	1490		4.0944494D 04
1490	1500		4.01315120 04
1500	1510		3.93378320 04
1510	1520		3.8562936D 04
1520	1530		3.78063190 04
1530	1540		3.70674950 04
1540	1550		23 3.6345986D 04
1550	156C		3.56413330 04 3.49530880 04
1560 1570	1570 1580		
1580	1590		3.4280814D 04 3.3624091D 04
1590	1600		3.2982506D 04
1600	1610		3.23556630 04
1610	1620		3.17431720 04
1620	1630		3.11446580 04
1630	1640		3.05597570 04
1640	1650		23 2.9988111D 04
1650	1660	2.4513607D 2	
1660	1670		2.8883222D 04
1670	1680		2.83493170 04
1680	1690		2.7827343D 04
1690	1700		2.73170070 04
1700	1710		2.6317996D 04
1710	1720		2.63300250 04
1720	1730		2.58528120 04
1730	1740		2.5386083D 04
1740	1750		2.49295720 04
1750	1760		2.44830210 04
1760	1770		2.40461780 04
1770	1780		2.3618800D 04
1780	1790		2.32006470 04
1790	1800	2.05904510 2	
1800	1810	2.0341429D 2	2.23911060 04

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$.

T = 6	300)0°	K
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$\lambda_{ exttt{min}}$	λ_{max}	$Q_{O,\Delta\lambda}$	$N_{O,\Delta\lambda}$
$\times 10^{-9}$ m	×10 ⁻⁹ m	Quanta $s^{-1} m^{-2} sr^{-1}$	$W m^{-2} sr^{-1}$
1810	1820	2.0096190D 23	2.1999275D 04
1820	1830	1.9854669D 23	2.16157850 04
1830	1840	1.9616800D 23	2.1240430D 04
1840	1850	1.9382522D 23	2.0873010D 04
1850	1860	1.91517700 23	2.05133290 04
1860	1870	1.8924485D 23	2.0161199D 04
1870	1880	1.8700607D 23	1.9816434D 04
1880	1890	1.8480076D 23	1.9478856D 04
1890	190C	1.8262835D 23	1.91482900 04
1900	1910	1.8048826D 23	1.8824566D 04
1910	1920	1.78379950 23	1.8507520D 04
1920	1930	1.7630286D 23	1.8196990D 04
1930	1940	1.7425645D 23	1.7892820D 04
1940	1950	1.7224021D 23	1.7594860D 04
1950	1960	1.7025360D 23	1.7302960D 04
1960	1970	1.6829613D 23	1.7016976D 04
1970	1980	1.6636729D 23	1.6736769D 04
1980	1940	1.64466590 23	1.64622020 04
1990	2000	1.5259355D 23	1.6193143D 04
2000	2010	1.60747700 23	1.59294620 04

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{O_1,\Lambda\lambda}$ and Radiance $N_{O_1,\Lambda\lambda}$.

T = 6000°K

λ _{min} ×10 ⁻⁹	λ _{max} m ×10 ⁻⁹ m	$Q_{0,\Delta\lambda}$ Quanta s ⁻¹ m ⁻²	sr ⁻¹	$N_{O,\Delta\lambda}$ W m ⁻² sr ⁻¹	
2000	2100	1.52867760	24	1.48256710	05
2100	2200	1.36855430	24	1.2654731D	05
2200	2300	1.22941080	24	1.08623430	05
2300	2400	1.10804160	24	9.3730104D	04
2400	∠500		24	8.12797d8D	04
2500	2600	9.08419610	23	7.0811943D	04
2600	2700	8.26078090	23	6.19630630	04
2700	2800	7.53268310	23	5.44442900	04
2800	2900	6.88626840	23	4.8024598D	04
2900	000 د		23	4.251806 0 D	C4
3000	3200	1.11333450	24	7.1444491D	04
3200	3400		23	5.7105665D	04
3400	3600		23	4.6177166D	04
3600	006 د	7.02064680	23	3.7733872D	04
3800	4000	6.10550580	23	3.1129586D	04
4000	4200	5.3417988D	23	2.59052820	04
4200	4400		23	2.1729839D	04
4400	4600		23	1.8360991D	04
4600	4800	3.69269950	23	1.5619168D	04
4800	5000		23	1.3369661D	04
5000	5500	6.838658 5 D	23	2.5954501D	04
5500	c000		23	1.8405805D	04
6000	6500	4.2105196D	23	1.3412295D	04
6500	7000	3.39199550	23	1.0001763D	04
7000	7500	2.77233800	23	7.6091243D	03
7500	8000		23	5.8907758D	03
3000	3500		23	4.6310840D	03
8500	9000		23	3.6907203D	0.3
3000	9500		23	2.9773138D	03
9500	10000		23	2.4282089D	03
10000	11000	1.92970110	23	3.6622131D	03
11000	12000		23		03
12000	1 3000		23	-	03
13000	14000		22		03
14000	15000		22		03
15000	10000	6.21741670	22	7.9805238D	02

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$.

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$\lambda_{ exttt{min}}$	$\lambda_{ exttt{max}}$	$Q_{O,\Delta\lambda}$		$N_{O,\Delta\lambda}$	
$\times 10^{-9}$ m	$\times 10^{-9}$ m	Quanta $s^{-1} m^{-2}$	sr^{-1}	$W m^{-2} sr^{-1}$	
300	310	4.88496110	23	3.1815665D	05
310	320	5.4067836D	23	3.4097461D	05
320	330	5.9241989D	23	3.6211934D	05
330	340	6.4324772D	23	3.8146006D	05
340	350	6.9274876D	23	3.9891562D	J5
350	360	7.40570690	23	4.1444804D	05
360	370	7.8642081D	23	4.28055990	05
370	380	8.3006321D	23	4.3976838D	05
380	390	8.7131494D	23	4.4963844D	05
390	400	9.1004143D	23	4.5773839D	05
400	410	9.4615158D	23	4.6415460D	05
410	420	9.7959270D	23	4.6098358D	05
420	430	1.0103456D	24	4.7232836D	05
430	440	1.0384197D	24	4.7429563D	05
440	450	1.0638489D	24	4.7499333D	05
450	460	1.0866868D	24	4.7452868D	05
460	470	1.10700400	24	4.7300671D	05
470	480	1.1248835D	24	4.70529050	05
480	490	1.14041900	24	4.6719311D	05
490	500	1.15371130	24	4.63091410	05
500	510	1.1648665D	24	4.58311240	05
51 0	520 530	1.1739943D 1.1812059D	24	4.5293438D	05
520 530	540	1.18661280	24 24	4.47037040	05 05
540	550	1.19032580	24	4.4068985D 4.3395797D	05
550	560	1.19245400	24	4.2690125D	05
560	570	1.19310410	24	4.19574420	05
570	580	1.19237940	24	4.1202736D	05
580	590	1.1903801D	24	4.0430534D	05
590	600	1.18720230	24	3.9644930D	05
630	610	1.18293820	24	3.8849616D	05
610	620	1.1776755D	24	3.80479030	05
620	630	1.17149790	24	3.7242754D	05
630	640	1.1644846D	24	3.6436812D	05
640	650	1.15671040	24	3.5632420D	05
650	660	1.14824590	24	3.4831648D	05
660	67C	1.13915760	24	3.4036320D	05
670	680	1.1295079D	24	3.3248029D	05
680	690	1.11935520	24	3.2468163D	05
690	700	1.1087542D	24	3.1697921D	05
700	710	1.0977558D	24	3.0938332D	05
710	720	1.0864077D	24		05
720	730	1.0747542D	24		05
730	740	1.0628362D	24	2.8731550D	05
740	750	1.05069210	24		05
750 740	760	1.0383570D	24		05
760 770	770	1.02586370	24	2.6644524D	05
770	780 700	1.0132423D	24		05
780 700	790	1.00052070	24		05
790	800	9.87724420	23	2.46P5848D	05

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$.

T = 6500°K

$\lambda_{ exttt{min}}$	$\lambda_{ exttt{max}}$	$Q_{O,\Delta\lambda}$	$N_{O,\Delta\lambda}$
$\times 10^{-9}$ m	$\times 10^{-9}$ m	Quanta $s^{-1} m^{-2} sr^{-1}$	$W m^{-2} sr^{-1}$
800	810	9.7487704D 23	2.40620840 05
810	820	9.6200018D 23	2.3452908D 05
820	830	9.49113620 23	2.2858266D 05
830	840	9.3623546D 23	2.2278068D 05
840	850	9.23382240 23	2.17121880 05
850	860	9.10569010 23	2.1160475D 05
860	870	8.9780946D 23	2.0622751D 05
870	880	8.8511601D 23	2.00988190 05
880	890	8.7249989D 23	1.9588464D 05
890	900	8.5997124D 23	1.90914550 05
900 910	910 920	8.4753918D 23 8.3521188D 23	1.8607551D 05 1.8136499D 05
920	930	8.2299664D 23	1.76780390 05
930	940	8.1089996D 23	1.72319060 05
940	950	7.9892757D 23	1.67978280 05
950	960	7.87084540 23	1.63755310 05
960	97C	7.7537527D 23	1.59647420 05
970	980	7.6380360D 23	1.55651830 05
930	990	7.5237280D 23	1.51765790 05
990	1000	7.4108568D 23	1.47986550 05
1000	1010	7.2994456D 23	1.44311390 05
1010	1020	7.1895135D 23	1.40737600 05
1020	1030	7.0810757D 23	1.37262510 05
1030 1040	1040 1050	6.9741439D 23 6.8687265D 23	1.3388349D 05 1.3059793D 05
1050	1060	6.76482900 23	1.2740328D 05
1060	1070	6.66245420 23	1.24297030 05
1070	1080	6.5616023D 23	1.21276730 05
1080	1090	6.4622715D 23	1.1833995D 05
1090	1100	6.3644576D 23	1.1548434D 05
1100	1110	6.268155CD 23	1.1270759D 05
1110	1120	6.1733560D 23	1.1000744D 05
1120	1130	6.0800517D 23	1.07381700 05
1130	1140	5.9882316D 23	1.04828200 05
1140	1150	5.8978841D 23	1.02344870 05
1150	1160	5.8089966D 23	9.99296490 04
1160 1170	1170	5.7215552D 23 5.6355456D 23	9.7580559D 04
1180	1180 1190	5.6355456D 23 5.5509522D 23	9.5295664D 04 9.3073081D 04
1190	1200	5.4677592D 23	9.0910980D 04
1200	1210	5.3859500D 23	8.8807582D 04
1210	1220	5.3055074D 23	8.6761157D 04
1220	1230	5.2264140D 23	8.4770027D 04
1230	1240	5.1486517D 23	8.28325590 04
1240	1250	5.0722025D 23	8.09471700 04
1250	1260	4.9970478D 23	7.9112323D 04
1260	1270	4.9231690D 23	7.73265250 04
1270	1280	4.85054720 23	7.5588330D 04
1280	1290	4.7791635D 23	7.3896332D 04
1290	1300	4.7089989D 23	7.22491710 04
1300	1310	4.6400344D 23	7.0645525D 04

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance ${\tt Q}_{0},_{\Delta\lambda}$ and Radiance ${\tt N}_{0},_{\Delta\lambda}$.

Т	=	6	5	n	a	0	K
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$\lambda_{ exttt{min}}$	$\lambda_{ exttt{max}}$	$Q_{O,\Delta\lambda}$	$N_{O,\Delta\lambda}$
×10 ⁻⁹ m	×10 ⁻⁹ m	Quanta s^{-1} m^{-2} sr^{-1}	$W m^{-2} sr^{-1}$
		·	
1310	1320	4.5722508D 23	6.9084113D 04 6.7563695D 04
1320	1330	4.5056292D 23 4.4401506D 23	
1330	1340		6.6083066D 04 6.4641059D 04
1340	1350	4.3757960D 23 4.3125467D 23	6.3236545D 04
1350	1360 1370	4.25038410 23	6.1868426D 04
1360 1370	1380	4.1892894D 23	6.0535640D 04
1380	1390	4.1292444D 23	5.92371590 04
1390	1400	4.0702308D 23	5.79719850 04
1400	1410	4.0122305D 23	5.67391510 04
1410	1420	3.95522570 23	5.5537721D 04
1420	1430	3.8991988D 23	5.43667870 04
1430	1440	3.8441322D 23	5.3225471D 04
1440	1450	3.7900088D 23	5.21129190 04
1450	1460	3.7368114D 23	5.1028308D 04
1460	1470	3.6845234D 23	4.9970836D 04
1470	148C	3.6331282D 23	4.8939730D 04
1480	1490	3.5826095D 23	4.7934238D 04
1490	1500	3.5329511D 23	4.69536320 04
1500	1510	3.48413740 23	4.5997207D 04
1510	1520	3.4361526D 23	4.5064281D 04
1520	1530	3.3889814D 23	4.4154191D 04
1530	1540	3.34260880 23	4.3266295D 04
1540	1550	3.2970199D 23	4.2399972D 04
1550	1560	3.2522002D 23	4.15546190 04
1560	1570	3.2081351D 23	4.0729652N 04
1570	1580	3.1648108D 23	3.99245C4D 04
1580	1590	3.1222133D 23	3.91386270 04
1590	1600	3.0803290D 23	3.8371489D 04
1600	1610	3.03914450 23	3.7622574D 04
1610	1620	2.9986468D 23	3.6891382D 04
1620	1630	2.9588228D 23	3.6177428D 04
1630	1640	2.9196601D 23	3.5480243D 04
1640	1650	2.8811460D 23	3.4799370D 04
1650	1660	2.8432686D 23	3.4134367D 04
1660	1670	2.8060158D 23	3.3484806D 04
1670	1680	2.76937580 23	3.28502710 04
1680	1690	2.7333372D 23	3.22303590 04
1690	1700	2.69788870 23	3.1624679D 04
1700	1710	2.66301920 23	3.1032850D 04
1710	1720	2.6287178D 23	3.0454506D 04
1720	1730	2.59497390 23	2.98892890 04
1730	1740	2.56177710 23	2.93368520 04
1740	1750	2.52911710 23	2.8796858D 04
1750	1760	2.49698390 23	2.82689830 04
1760	1770	2.4653676D 23	2.77529080 04
1770	1780	2.4342586D 23	2.72483270 04
1780	1790	2.4036474D 23	2.67549410 04
1790	1800	2.37352480 23	2.62724600 04
1800	1810	2.3438817D 23	2.5800604D 04

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$.

T	=	65	00	°K

$\lambda_{ exttt{min}}$	$\lambda_{ exttt{max}}$	Qo,Δλ	$N_{O,\Delta\lambda}$
$\times 10^{-9}$ m	$\times 10^{-9}$ m	Quanta $s^{-1} m^{-2} sr^{-1}$	$W m^{-2} sr^{-1}$
1810	1820	2.31470920 23	2.5339098D 04
1820	1830	2.28599850 23	2.4887678D 04
1830	184C	2.2577411D 23	2.4446087D 04
1840	1850	2.22992860 23	2.4014074D 04
1850	1860	2.2025528D 23	2.35913960 04
1860	1870	2.1756057D 23	2.31778170 04
1870	1880	2.1490793D 23	2.27731090 04
1880	1890	2.1229660D 23	2.23770490 04
1890	1900	2.0972581D 23	2.1989419D 04
1900	1910	2.07194830 23	2.16100110 04
1910	1920	2.04702920 23	2.1238620D 04
1920	1930	2.0224938D 23	2.0875047D 04
1930	1940	1.9983350D 23	2.05190990 04
1940	1950	1.9745460D 23	2.01705900 04
1950	1960	1.95112010 23	1.9829335D 04
1960	1970	1.9280508D 23	1.9495160D 04
1970	1980	1.97533150 23	1.91678900 04
1980	1990	1.8829560D 23	1.88473590 04
1990	2000	1.8609181D 23	1.8533403D 04
2000	2010	1.83921180 23	1.82258640 04

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{O_{1},\Delta\lambda}$ and Radiance $N_{O_{1},\Delta\lambda}$. $T = 6500^{\circ} K$

		$T = 6500^{\circ} K$	
λ _{min} ×10 ⁻⁹ m	λ _{max} ×10 ⁻⁹ m	$Q_{O,\Delta\lambda}$ Quanta s ⁻¹ m ⁻² sr ⁻¹	$N_{O,\Delta\lambda}$ W m ⁻² sr ⁻¹
2000	2100	1.7467187D 24	1.69405170 05
2100	2200	1.55932950 24	1.4418939D 05
2200	2300	1.39721630 24	1.2345083D 05
2300	2400	1.25637240 24	1.06278350 05
2400	2500	1.13350350 24	9.1967516D 04
2500	2600	1.02589130 24	7.9969420D 04
2600	2700	9.3129338D 23	6.9853057D 04
2700	2800	8.47806220 23	6.1277535D 04
2800	2900	7.7389453D 23	5.3971364D 04
2900	3000	7.08235290 23	4.7716890D 04
3000	3200	1.24714340 24	8.0032258D 04
3200	5400	1.05892840 24	6.3826756D 04
3400	3600	9.0550014D 23	5.1510898D 04
3600	3800	7.8180250D 23	4.2019549D 04
3800	4000	6.7884488D 23	3.4611859D 04
4000	4200	5.93114730 23	2.8763505D 04
4200	4400	5.21171980 23	2.4097485D 04
4400	4600	4.6036485D 23	2.0338756D 04
4600	4800	4.08628030 23	1.7283973D 04
4800	9000	3.6433746D 23	1.4780940D 04
5000	5500	7.54995870 23	2.8654507D 04
5500	6000	5.85673980 23	2.02859370 04
6000	6500	4.6335578D 23	1.47599830 04
6500	7000	3.7282098D 23	1.0993213D 04
7000	7500	3.0439315D 23	9.3546027D 03
7500	8000	2.51722630 23	6.4620235D 03
8000	8500	2.10525450 23	5.0761418D 03
8500	9000	1.77844920 23	4.0425782D 03
9000	9500	1.51588540 23	3.2591347D 03
9500	10000	1.30253730 23	2.6565800D 03
10000	11000	2.10968970 23	4.0038264D 03
11000	12000	1.61999320 23	2.9057645D 03
12000	13000	1.27085130 23	2.0242229D 03
13000	14000	1.01524670 23	1.49686810 03
14000	15000	8.23840580 22	1.13062420 03
15000	16000	6.7767902D 22	8.6986498D 02

R.K.H. Gebel. Blackbody functions. Blackbody Quantum Radiance $Q_{O_1,\Delta\lambda}$ and Radiance $N_{O_1,\Delta\lambda}$. $T=7000^{\circ}K$

$\lambda_{ exttt{min}}$	$\lambda_{ exttt{max}}$	Qo, Δλ	$N_{O,\Delta\lambda}$
9	×10 ⁻⁹ m	Quanta $s^{-1} m^{-2} sr^{-1}$	$W m^{-2} sr^{-1}$
300	310	8.20659520 23	5.34518770 05
310	32C	8.9360377D 23	5.6356785D 05 5.8941614D 05
320	330	9.64236140 23	
330	340	1.0320113D 24	6.1202668D 05
340	350	1.0964895D 24 1.1573299D 24	6.3142759D 05 6.4769920D 05
350 360	36C 370	1.1573299D 24 1.2142819D 24	6.60962330 05
37 0	380	1.2671763D 24	6.7136784D 05
380	390	1.3159148D 24	6.79087750 05
390	400	1.36046110 24	6.8430763D 05
400	410	1.40083070 24	6.8722038D 05
410	420	1.4370832D 24	6.8802119D 05
420	430	1.4693134D 24	6.86903540 05
430	440	1.4976447D 24	6.84056130 05
440	450	1.5222228D 24	6.7966058D 05
450	460	1.54320980 24	6.73889800 05
460	470	1.5607796D 24	6.6690688D 05
470	480	1-5751141D 24	6.5886438D 05
480	490	1.58639910 24	6.4990406D 05
490	500	1.59482220 24	6.4015682D 05
500	510	1.6005699D 24	6.29742790 05
510	520	1.6038257D 24	6.18771710 05
520	530	1.6047693D 24	6.0734332D 05
530	540	1.6035744D 24	5.9554787D 05
540	550	1.60040870 24	5.8346666D 05
550	560	1.5954326D 24	5.7117261D 05
560	570	1.58879930 24	5.5873089D 05
570	580	1.58065410 24	5.4619943D 05
580	590	1.5711347D 24	5.3362956D 05
590	600	1.5603706D 24	5.2106655D 05
600	610	1.5484838D 24	5.08550100 05
610	620	1.5355887D 24	4.9611486D 05
620	630	1.5217920D 24	4.83790920 05
630	640	1.5071935D 24	4.71604220 05
640	650	1.4918860D 24	4.5957697D 05
650	660	1.4759556D 24	4.4772801D 05
660	670	1.4594823D 24	4.3607318D 05
670	680	1.4425401D 24	4.2462561D 05
680	690	1.4251971D 24	4.1339605D 05
690	700	1.4075164D 24	4.0239308D 05
700	710	1.3895559D 24	3.9162339D 05
710	720	1.3713688D 24	3.8109199D 05
720	730	1.35300410 24	3.7080241D 05
730	740	1.3345063D 24	3.6075686D 05
740	750	1.3159164D 24	3.5095642D 05
750	760	1.2972717D 24	3.4140116D 05
760	770	1.2786061D 24	3.32090290 05
770	78C	1.25995030 24	3.23022240 05
780	790	1.24133250 24	3.141°482D 05
790	900	1.2227779D 24	3.0560527D 05

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $\mathbb{Q}_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$.

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$\lambda_{ exttt{min}}$	$\lambda_{ exttt{max}}$	$Q_{O,\Delta\lambda}$	$N_{O,\Delta\lambda}$
×10 ⁻⁹ m	×10 ⁻⁹ m	Quanta $s^{-1} m^{-2} sr^{-1}$	$W m^{-2} sr^{-1}$
800	810	1.20430930 24	2.9725036D 05
810	820	1.1859474D 24	2.8912647D 05
820	830	1.1677104D 24	2.8122964D 05
830	840	1.14961490 24	2.73555630 05
840	850	1.13167570 24	2.66099990 05
850	860	1.11390570 24	2.5885808D 05
860	870	1.0963164D 24	2.51825150 05
870	880	1.07891810 24	2.44996320 05
880	890	1.0617196D 24	2.3836666D 05
890	900	1.0447284D 24	2.3193119D 05
900	910	1.0279512D 24	2.2568493D 05
910	920	1.01139350 24	2.1962288D 05
920	930	9.9506015D 23	2.1374008D 05
930	940	9.78954890 23	2.08031590 05
940	950	9.6308084D 23	2.0249253D 05
950	960	9.47440430 23	1.9711809D 05
960	970	9.32035450 23	1.91903510 05
970	98C	9.16867110 23	1.86844120 05
980	990	9.01936130 23	1.8193534D 05
990	1000	8.87242740 23	1.77172680 05
1000 1010	1010	8.7278675D 23	1.72551740 05
1010	1020 1030	8.58567(OD 23 8.4458438D 23	1.6806821D 05 1.6371791D 05
1030	1040	8.3083587D 23	1.63717910 05 1.5949672D 05
1040	1050	8.1732056D 23	1.55400670 05
1050	1060	8.04036720 23	1.5142586D 05
1060	1070	7.9098237D 23	1.47568510 05
1070	1080	7.7815536D 23	1.43824950 05
1080	1090	7.65553350 23	1.4019160D 05
1090	1100	7.5317386D 23	1.36664990 05
1100	1110	7.4101425D 23	1.33241750 05
1110	1120	7.2907181D 23	1.2991861D 05
1129	1130	7.1734370D 23	1.26692410 05
1130	1140	7.0582699D 23	1.2356006D 05
1140	1150	6.9451870D 23	1.20518600 05
1150	1160	6.8341578D 23	1.1756513D 05
1160	1170	6.7251514D 23	1.1469687D 05
1170	1180	6.6181363D 23	1.11911100 05
1180	1190	6.5130810D 23	1.0920521D 05
1190	1200	6.4099537D 23	1.06576660 05
1200	1210	6.3087224D 23	1.0402300D 05
1210	1220	6.20935500 23	1.0154187D 05
1220	1230	6.1118197D 23	9.91309530 04
1230	1240	6.0160843D 23	9.6788043D 04
1240	1250	5.92211720 23	9.4510990D 04
1250	1260	5.82988670 23 5.7393413D 23	9.2297718D 04
1260 1270	1270 1280	5.7393613D 23 5.6505096D 23	9.01462210 04
1270	1290	5.5633009D 23	8.8054558D 04 8.6020853D 04
1290	1300	5.4777044D 23	8.40432940 04
1300	1310	5.39368970 23	8.2120126D 04
2 3 0 0	1) 10	743.300710 23	3.21201200 04

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$.

T = 7000°K

$\lambda_{ exttt{min}}$	$\lambda_{ exttt{max}}$	$Q_{O,\Delta\lambda}$	$N_{O,\Delta\lambda}$
$\times 10^{-9}$ m	$\times 10^{-9}$ m	Quanta $s^{-1} m^{-2} sr^{-1}$	$W m^{-2} sr^{-1}$
1310	132C	5.3112269D 23	8.02496570 04
1320	1330	5.23028620 23	7.8430247D 04
1330	1340	5.1508385D 23	7.6660315D 04
1340	1350	5.0728549D 23	7.4938330D C4
1350	1360	4.9963068D 23	7.3262813D 04
1360	1370	4.9211663D 23	7.1632334D 04
1370	1380	4.8474058D 23	7.0045512D 04
1380	1390	4.7749979D 23	6.8501011D 04
1390	14CC	4.7039161D 23	6.6997540D 04
1400	1410	4.6341339D 23	6.5533850D 04
1410	1420	4.5656255D 23	6.4108736D 04
1420	1430	4.4983655D 23	6.2721030D 04
1430	1440	4.432329CD 23	6.13696050 04
1440	1450	4.3674914D 23	6.0053370D 04
1450	1460	4.3038286D 23	5.87712710 04
1460	1470	4.2413170D 23	5.75222900 04
1470	1480	4.1799335D 23	5.63054390 04
1480	1490	4.1196553D 23	5.5119766D 04
1490	1500	4.06046010 23	5.3964348D 04
1500	1510	4.00232610 23	5.2838294D 04
1510	1520	3.9452317D 23	5.17407410 04
1520	1530	3.8891561D 23	5.06708550 04
1530	1540	3.83407850 23	4.9627828D 04
1540	1550	3.7799788D 23	4.8610880D 04
1550	1560	3.72683730 23	4.7619254D 04
1560	1570	3.67463460 23	4.66522200 04
1570	1580	3.62335170 23	4.57090690 04
1580 1590	1590	3.57297010 23	4.47891170 04
1600	1400 1510	3.5234715D 23 3.4748382D 23	4.3891702D 04 4.3016180D 04
1610	1620	3.42705270 23	4.3016180D 04 4.2161931D 04
1620	1630	3.3800979D 23	4.1329154D 04
1630	1540	3.3339571D 23	4.05148660 04
1640	1650	3.2886141D 23	3.97209030 04
1650	1660	3.24405270 23	3.89459190 04
1660	1670	3.2002573D 23	3.8189385D 04
1670	1680	3.1572126D 23	3.74507900 04
1680	1690	3.11490350 23	3.67296350 04
1590	1700	3.0733154D 23	3.6025442D 04
1700	1710	3.032434CD 23	3.53377430 04
1710	1720	2.97224510 23	3.46660880 04
1720	1730	2.95273500 23	3.40100390 04
1730	1740	2.91389020 23	3.33691710 04
1740	1750	2.8756976D 23	3.27430750 04
1750	1760	2.8391443D 23	3.21313510 04
1760	1770	2.80121770 23	3.15336140 04
1770	1780	3.7649054D 23	3.0949489D 04
1780	1790	2.7291954D 23	3.03786120 04
1790	1800	2 5940758D 23	2.98206320 04
1820	1810	2.6595352D 23	2.92752070 04

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$.

T = 7000°K

$\lambda_{ exttt{min}}$	$\lambda_{ exttt{max}}$	Qo,Δλ	$N_{O,\Delta\lambda}$
$\times 10^{-9}$ m	×10 ⁻⁹ m	Quanta s^{-1} m^{-2} sr^{-1}	$W m^{-2} sr^{-1}$
1810	1820	2.62556210 23	2.87420070 04
1820	1830	2.5921457D 23	2.8220709D 04
1830	1840	2.5592750D 23	2.7711002D 04
1840	1850	2.5269394D 23	2.72125830 04
1850	1860	2.4951286D 23	2.6725159D 04
1860	1870	2.4638325D 23	2.62484450 04
1870	1880	2.43304110 23	2.5782165D 04
1880	1890	2.40274480 23	2.5326051D 04
1890	1900	2.3729340D 23	2.4879841D 04
1900	1910	2.3435996D 23	2.4443283D 04
1910	1920	2.3147322D 23	2.40161320 04
1920	1930	2.2863232D 23	2.35981490 04
1930	1940	2.2583638D 23	2.3189103D 04
1940	1950	2.23084540 23	2.2788769D 04
1950	1960	2.2037598D 23	2.2396928D 04
1960	1970	2.1770987D 23	2.2013368D 04
1970	1980	2.1508543D 23	2.1637884D 04
1980	1990	2.1250186D 23	2.1270275D 04
1990	2000	2.0995841D 23	2.0910346D 04
2000	2010	2.0745432D 23	2.0557908D 04

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$. $T = 7000^{\circ}K$

λ _{min} ×10 ⁻⁹ m	λ _{max} ×10 ⁻⁹ m	$Q_{0,\Delta\lambda}$ Quanta s ⁻¹ m ⁻² sr ⁻²	$N_0,_{\Delta\lambda}$
2300	2100	1.96800410 24	
2100	2200	1.75268780 24	
2200	2300	1.56709810 24	
2300	2400	1.40638590 24	
2400	2500	1.28659990 24	1.02766960 05
2500	2500	1.14449670 24	8.9215308D 04
2600	2700	1.03740920 24	7.78136170 04
2700	2800	9.43129460 23	6.81675560 04
2800	∠900	8.59821980 23	5.99641530 04
2900	2000	7.85953690 23	5.29532850 04
3000	3200	1.38183020 24	8.8676400D 04
3200	3400	1.17107150 24	7.0586789D 04
3400	600ذ	1.00084050 24	5.6872108D 04
3600	300 د	8.6190275D 23	4.6324986D 04
3800	4000	7.47422480 23	3.8108585D 04
4000	4200	6.5227082D 23	3.16324630 04
4200	4400	5.7255124D 23	2.6473215D 04
4430	4600	5.0526918D 23	2:2322688D 04
4600	4300	4.4809858D 23	1.89535370 04
4800	5000	3.99214740 23	1.61959310 04
5000	5500	8.26289750 23	3.1360744D 04
5500	000ء	6.4002428D 23	2.2168679D 04
6000	6500	5.0572828D 23	1.6109860D 04
6500	7000	4.0548918D 23	1.1986044D 04
7000	7500	3.3158523D 23	9.1009803D 03
7500	0000	2.73997520 23	7.0339740D 03
8000	o500	2.2900110D 23	5.5216138D 03
8500	9000	1.93336480 23	4.3947271D 03
3000	9500	1.64705890 23	3.5411642D 03
9500	10000	1.4145810D 23	2.8851033D 03
10000	11000	2.28978210 23	4.34563710 03
11000	12000	1.7570475D 23	3.0431513D 03
12000	13000	1.37755930 23	2.1941961D 03
13000	1+000	1.09994580 23	1.62175200 03
14000	15000	8.92190530 22	1.22442920 03
15000	16300	7.33631120 22	9.41686530 02

R.K.H. Gebel. Blackbody functions. Blackbody Quantum Radiance $Q_{O,\Delta\lambda}$ and Radiance $N_{O,\Delta\lambda}$.

Т	=	7500	٩K
	_	7300	

$\lambda_{ exttt{min}}$	$\lambda_{ exttt{max}}$	$Q_{O,\Delta\lambda}$	$N_{O,\Delta\lambda}$
9	×10 ⁻⁹ m	Quanta $s^{-1} m^{-2} sr^{-1}$	_
		·	
300	310	1.2869000D 24	8.3822784D 05
310	320	1.38163700 24	8.7138663D 05
320	330	1.47124670 24	8.9936998D 05
330	340	1.55521930 24	9.22378960 05
340	350	1.63319750 24	9.4052353D 05
350	360	1.70495770 24	9.5420284D 05
360 370	370	1.7703924D 24	9.63688580 05
370	38C 390	1.82949219 24	9.69311250 05
380 390	400	1.9823292D 24 1.9290418D 24	9.7140910D 05
400	410		9.7031945D 05
410	420	1.9698209D 24 2.0048977D 24	9.6637204D 05 9.5988417D 05
420	430	2.03453310 24	
430	440	2.0590089D 24	9.5115723D 05 9.4047438D 05
440	450	2.07862030 24	9.2809927D 05
450	460	2.0736692D 24	9.1427536D 05
460	470	2.1044593D 24	8.9922593D 05
470	480	2.1112917D 24	8.83154430 05
480	490	2.1144621D 24	8.6624513D 05
490	500	2.11425750 24	8.4866411D 05
500	510	2.1109548D 24	8.3056021D 05
510	520	2.10481910 24	8.1206622D 05
520	530	2.0961030D 24	7.9330001D 05
530	540	2.0850456D 24	7.7436572D 05
540	55C	2.0718727D 24	7.5535489D 05
550	560	2.0567963D 24	7.3634758D 05
560	570	2.0400149D 24	7.1741343D 05
570	58C	2 0217138D 24	6.9861264D 05
580	590	2,00206530 24	6.7999695D 05
590	600	1.9812294D 24	6.6161044D 05
600	610	1.95935430 24	6.4349040D 05
610	62C	1.93657670 24	6.25668020 05
620	630	1.9130226D 24	6.0816907D 05
630	640	1.88880780 24	5.9101454D 05
640	650	1.8640387U 24	5.7422116D 05
650	660	1.8388126D 24	5.5780192D 05
660	670	1.8132186D 24	5.4176655D 05
670	680	1.78733770 24	5.2612186D 05
680	690	1.7612439D 24	5.1087218D 05
690	700	1.73500420 24	4.9601964D 05
700	71C	1.7086796D 24	4.8156450D 05
710	720	1.6823249D 24	4.6750538D 05
720	730	1.6559900D 24	4.53839490 05
730	740	1.6297194D 24	4.4056287D 05
740	750	1.6035534D 24.	4.27670550 05
750	760	1.5775278D 24	4.15156710 05
760	77C	1.55167470 24	4.03014840 05
770	780	1.52602260 24	3.9123786D 05
780	79C	1.5005968D 24	3.7981820D 05
790	800	1.47541960 24	3.68747950 05

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{0},_{\Delta\lambda}$ and Radiance $N_{0},_{\Delta\lambda}$. $T = 7500^{\circ}K$

١	1	00.43	No, AA
λ_{\min}	λ _{max}	Qο,Δλ -1 -2 -1	
$\times 10^{-9}$ m	×10 ⁻⁹ m	Quanta $s^{-1} m^{-2} sr^{-1}$	$W m^{-2} sr^{-1}$
0.08	31 C	1.45051030 24	3.58018910 05
810	820	1.42588630 24	3.4762268D 05
820	830	1.4015621D 24	3.3755071D 05
830	840	1.37755040 24	3.2779436D 05
840	850	1.3538621D 24	3.18344970 05
850	850	1.33050620 24	3.09193870 05
861:	470	1.30749020 24	3.0033245D 05
97	BAC	1.28482030 24	2.91752140 05
633 893	890 900	1.2625010D 24 1.2405362D 24	2.8344449D 05 2.7540118D 05
90 0	2.40	1,21892840 24	2.6761399D 05
910	9.20	1.19767910 24	2.6007488D 05
920	930	1.1767891D 24	2.52775970 05
930	940	1.15625850 24	2.45709550 05
940	950	1.1360865D 24	2.38858090 05
950	960	1.11627170 24	2.3224424D 05
960	970	1.09681240 24	2.2583086D 05
570	980	1.0777062D 24	2.19620980 05
980	990	1.0589501D 24	2.13607850 05
990	1000	1.04054120 24	2.07784900 05
1000	1010	1.02247580 24	2.02145750 05
1010	1020	1.0047501D 24	1.9668421D 05
1020	1030	9.8736002D 23	1.91394310 05
1030	1040	9.7030130D 23	1.86270200 05
1040	1050	9.5356944D 23	1.81306390 05
1050	1060	9.37159760 23	1.76497330 05
1060	1070	9.2106750D 23	1.71837790 05
1070	1080	9.0528773D 23	1.67322700 05
1080	1090	8.8981547D 23	1.62947160 05
1090	1100	8.7464566D 23 8.5977318D 23	1.5870641D 05 1.5459589D 05
1100	1110 1120	8.5977318D 23 8.4519287D 23	1.5061117D 05
1120	1130	8.3089956D 23	1.46747970 05
1130	1140	8.1688806D 23	1.43002180 05
1140	1150	8.0315319D 23	1.3936983D 05
1150	1160	7.8968976D 23	1.3584707D 05
1160	1170	7.7649263D 23	1.32430210 05
1170	1180	7.6355667D 23	1.29115670 05
1180	1190	7.50876790 23	1.25900010 05
1190	1200	7.3844796D 23	1.22779910 05
1200	1210	7.2626516D 23	1.19752170 05
1210	1220	7.1432346D 23	1.16813700 05
1220	1230	7.0261799D 23	1.13961520 05
1230	1240	6.911%390D 23	1.1119275D 05
1240	1250	6.79.90.50 23	1.0850463D 05
1250	1260	6.6987095D 23	1.05894490 05
1260	1270	6.5806278D 23	1.03359760 05
1270	1280	6.4746739D 23	1.00897940 05
1280	1290	6.3708032D 23	9.8506651D 04
1290	1300	6.2689715D 23	9.61835800 04
1300	1310	6.1691359D 23	9.3926502D 04

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Kadiance $Q_{O_1,\Lambda\lambda}$ and Radiance $N_{O_1,\Delta\lambda}$.

T = 7500°K

$\lambda_{ exttt{min}}$	$\lambda_{ extbf{max}}$	Qo,Δλ	$N_{O,\Delta\lambda}$
×10 ⁻⁹ m	×10 ⁻⁹ m	Quanta $s^{-1} m^{-2} sr^{-1}$	$W m^{-2} sr^{-1}$
1310	1320	6.07125370 23	9.17332690 04
1320	1330	5.975283 3 D 23	8.96018110 04
1330	1340	5.8811840D 23	8.7530132D 04
1340 1350	1350 1360	5.7889155D 23	8.55163050 04
1360	1370	5.6984385D 23 5.6097145D 23	8.3558473D 04 8.1654845D 05
1370	1380	5.52270570 23	7.9803692D 04
1380	1390	5.4373751D 23	7.8003345D 04
1390	1400	5.35368650 23	7.6252197D 04
1400	1410	5.27160440 23	7.4548696D 04
1410	1420	5.1910940D 23	7.2891341D 04
1420	1430	5.11212120 23	7.1278689D 04
1430	1440	5.0346529D 23	6.97093440 04
1440	1450	4.9586565D 23	6.8181958D 04
1450	1460	4.8841001D 23	6.6695232D 04
1460	1470	4.8109525D 23	6.52479110 04
1470	1480	4.7391834D 23	6.3838782D 04
1480	1490	4.66976280 23	6.2466676D 04
1490	1500	4.5996617D 23	6.1130462D 04
1500	1510	4.5318516D 23	5.9829049D 04
1510	1520	4.46530470 23	5.8561383D 04
1520	1530	4.3999937D 23	5.7326445D 04
1530	1540	4.3358920D 23	5.6123251D C4
1540	1550	4.2729737D 23	5.4950852D 04
1550	1560	4.2112134D 23	5.3808328D 04
1560	1570	4.1505863D 23	5.2694791D 04
1570	1580	4,0910681D 23	5.1609384D 04
1580	1590	4.0326351D 23	5.05512790 04
1590	1600	3.9752642D 23	4.9519669D 04
1600	1610	3.91893280 23	4.8513784D 04
1610	1620	3.8636187D 23	4.75328720 04
1620	1630	3.8093005D 23	4.6576209D 04
1630 1640	1640 1650	3.7559569D 23 3.7035675D 23	4.5643094D 04 4.4732847D 04
1650	1660	3.65211210 23	4.4732847D 04 4.3844814D 04
1660	1670	3.6015711D 23	4.2978360D 04
1670	1680	3.55192520 23	4.2132869D 04
1680	1690	3.5031557D 23	4.1307749D 04
1690	1700	3.4552443D 23	4.05024230 04
1700	1710	3.4081731D 23	3.9716335D 04
1710	1720	3.3619246D 23	3.89489460 04
1720	1730	3.31648170 23	3.8199733D 04
1730	1740	3.2718278D 23	3.7468192D 04
1740	1750	3.2279465D 23	3.6753833D 04
1750	1760	3.1848220D 23	3.6056182D 04
1760	1770	3.1424386D 23	3.53747810 04
1770	1780	3.10078130 23	3.4709183D 04
1780	1790	3.0598350D 23	3.40589590 04
1790	1800	3.0195854D 23	3.34236920 04
1800	1810	2.98001830 23	3.2802975D 04

R.K.H. Gebel, Blackbody functions. Blackbody Quantum kadiance $Q_{0},_{\Delta\lambda}$ and Radiance $N_{0},_{\Delta\lambda}$.

50	O°	K
	50	500°

$\lambda_{ exttt{min}}$	$\lambda_{ exttt{max}}$	Q ο,Δλ	$N_{O,\Delta\lambda}$
×10 ⁻⁹ m	$\times 10^{-9}$ m	Quanta $s^{-1} m^{-2} sr^{-1}$	$W m^{-2} sr^{-1}$
1810	1820	2.9411198D 23	3.2196418D 04
1820	1830	2.9028764D 23	3.1603640D 04
1830	1840	2.8652748D 23	3.1024273D 04
1840	1850	2.8283022D 23	3.0457960D 04
1850	1860	2.7919460D 23	2.99043540 04
1860	1870	2.7561937D 23	2.9363120D 04
1870	1880	2.7210334D 23	2.88339310 04
1880	1890	2.6864532D 23	2.8316473D 04
1890	1900	2.6524417D 23	2.78104380 04
1900	1910	2.6189876D 23	2.7315529D 04
1910	1920	2.5860798D 23	2.6831458D 04
1920	1930	2.5537077D 23	2.6357945D 04
1930	1940	2.5218607D 23	2.5894718D 04
1940	195C	2.4905286D 23	2.54415140 04
1950	1960	2.4597012D 23	2.4998077D)4
1960	1970	2.4293689D 23	2.4564158D 04
1970	1980	2.39952190 23	2.41395170 04
1980	1990	2.37015100 23	2.37239180 04
1990	2000	2.3412468D 23	2.33171350 04
2000	2010	2.3128005D 23	2.2918947D C4

R.K.H. Gebel. Blackbody functions. Blackbody Quantum Radiance $Q_{O_1, \Lambda\lambda}$ and Radiance $N_{O_1, \Lambda\lambda}$.

T = 7500°K

λ _{min} ×10 ⁻⁹ m	λ _{max} ×10 ⁻⁹ m	$Q_{O,\Delta\lambda}$ Quanta s ⁻¹ m ⁻²	sr ⁻¹	$N_{O,\Delta\lambda}$ W m ⁻² sr ⁻¹	
2000	2100	2.19192690	24	2.1258763D	05
2130	2200	1.94814310	24	1.3014546D	05
2200	2300	1.73366340	24	1.5362150D	05
2300	2400	1.55776500	24	1.31775190	05
2400	2500	1.40030990	24	1.13656800	05
2500	2600	1.2540188D	24	9.8532655D	04
2600	∠700	1.14429480	24	8.5831180D	04
2700	2800	1.03908660	24	7.5103408D	04
2800	2900	9.46281660	23	6.5994067D	04
2900	3000	8.64121540	23	5.8217967D	04
3000	3200	1.51722427	24	9.73659650	04
3200	400د	1.28373430	24	7.73781740	04
3400	3600	1.09556970	24	6.2255424D	04
3600	3800	9.42298420	23	5.0646308D	04
3800	∓ 000	8.16227770	23	4.1616924D	04
4000	4200	7.11604640	23	3.45100420	04
4200	4400	6.2407085D	23	2.8855438D	04
4400	4600	5.5029551D	23	2.4311570D	04
4600	→800	4.87659380	23	2.06269200	04
4800	5000	4.34165410	23	1.7613900D	04
5000	>500	8.97715050	23	3.4071976D	04
5500	6000	6.94458030	23	2.4054316D	04
0000	5500	5.4815582D	23	1.7461493D	04
6500	7000	4.40194850	23	1.2979981D	04
7000	7 500	3.58803540	23	9.8480781D	03
7500	8000	2.96271200	23	7.6062072D	03
8000	3300	2.47499500	23	5. 76741760	03
3500	9000	2.08838280	23	4.7471090D	03
9000	9500	1.77831010	23	3.8233606D	03
9500	10000	1.52668430	23	3.1137482D	03
10000	11000	2.45395760	23	4.68760580	03
11000	12000	1.89415450	23	3.2806294D	03
12000	000 د 1	1.48430190	23	2.3642246D	03
13000	14000	1.18466840	23	1.74667070	03
1400)	15000	9.60556970	22	1.3182569D	03
15000	16300	7.89595030	22	1.01352330	03

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$.

T = 8000°K

$\lambda_{ exttt{min}}$	$\lambda_{ exttt{max}}$	Qo,Δλ		$N_{O,\Delta\lambda}$	
$\times 10^{-9}$ m	$\times 10^{-9}$ m	Quanta $s^{-1} m^{-2}$	sr ⁻¹	$W m^{-2} sr^{-1}$	
300	310	1.90828720	24	1.24301430	06
310	320	2.0236959D	24	1.2763679D	06
320	330	2.13023740	24	1.30224690	06
330	340	2.22758580	24	1.32112730	06
340	350	2.3156044D	24	1.33353880	06
350	360	2.39431470	24	1.3400401D	06
360	370	2.4638667D	24	1.3411986D	06
370	380	2.52451270	24	1.3375754D	06
380	390	2.5765840D	24	1.32971410	06
390	400	2.6204702D	24	1.3181327D	06
400	41C	2.65660240	24	1.3033182D	06
410	420	2.6854381D	24	1.28572350	06
420	430	2.7074494D	24	1.26576570	06
430	440	2.72311350	24	1.2438257D	06
440	450	2.7329043D	24	1.2202487D	06
450	460	2.73728670	24	1.1953459D	06
460	470	2.7367116D	24	1.1693955D	06
470	480	2.73161290	24	1.14264510	06
480	490	2.7224045D	24	1.11531390	06
490	500	2.709479CD	24		06
500	510	2.6932066D	24	1.0596562D	06
510	520	2.6739347D	24		06
520	530	2.651988CD	24		06
530	540	2.6276685D	24		05
540	550	2.6012564D	24		05
550	560	2.5730108D	24		05
560	570	2.5431706D	24		05
570	58C	2.51195520	24		05
580	590	2.4795660D	24		05
590	600	2.44618700	24		05
600	610	2.4119864D	24		05
610	620	2.3771170D	24		05
620	630	2.3417179D	24		05
630	640	2.30591510	24		05
640	650	2.2698223D	24		05
650	660	2.23354240	24		05
660	670	2.19716780	24		05
670	680	2.1607816D	24		05
680	690	2.12445810	24		05
690	700	2.08826350	24		05
700 710	710 720	2.0522570D 2.0164909D	24 24		05 05
720	730		24 24		
730	740		24		05 05
740	750	1.91107000	24		05
750	760		24		05
760	770	1.84270000	24		05
770	780	1.80916890	24		05
780	790		24		05
790	800		24		05
	., .,			14371769019	

R.K.H. Gobel, Blackbody functions. Blackbody Quantum Radiance $Q_{0,\Lambda\lambda}$ and Radiance $N_{0,\Delta\lambda}$. $T = 8000 ^{\circ} K$

$\lambda_{ exttt{min}}$	$\lambda_{ exttt{max}}$	Qo, Δλ	$N_{O,\Delta\lambda}$
×10 ⁻⁹ m	×10 ⁻⁹ m	Quanta $s^{-1} m^{-2} sr^{-1}$	$W m^{-2} sr^{-1}$
800	810		
810	820	1.7114174D 24 1.6798262D 24	4.2241736D 05 4.0953238U 05
820	830	1.6487480D 24	3.9708328D 05
830	840	1.61818920 24	3.8505600D 05
840	850	1.5881547D 24	3.7343667D 05
850	860	1.5586477D 24	3.62211710 05
860	870	1.52966960 24	3.51367820 05
870	880	1.50122090 24	3.40891990 05
880	890	1.4733006D 24	3.30771540 05
890	900	1.4459067D 24	3.2099414D 05
900	910	1.4190365D 24	3.11547780 05
910	920	1.39268610 24	3.02420780 05
920	930	1.36685110 24	2.9360185D 05
930	940	1.3415265D 24	2.85080020 05
940	950	1.3167066D 24	2.7684467D 05
950 960	960 970	1.2923853D 24 1.2685561D 24	2.6888553D 05
970	980	1.2685561D 24 1.2452120D 24	2.6119266D 05 2.5375648D 05
980	990	1.2223460D 24	2.46567720 05
990	1000	1.1999506D 24	2.39617430 05
1000	1010	1.1780181D 24	2.32896980 05
1010	1020	1.15654070 24	2.26398060 05
1020	1030	1.1355106D 24	2.2011264D 05
1030	1040	1.1149196D 24	2.14033000 05
1040	1050	1.0947598D 24	2.0815168D 05
1050	1060	1.07502290 24	2.0246153D 05
1060	1070	1.0557009D 24	1.9695562D 05
1070	1080	1.03678550 24	1.91627320 05
1080	1090	1.0192687D 24	1.86470220 05
1090	1100	1.0001423D 24	1.81478170 05
1100 1110	1110 1120	9.8239839D 23 9.6502891D 23	1.7664524D 05 1.7196573D 05
1120	1130	9.4802599D 23	1.67434150 05
1130	1140	9.31381810 23	1.63045230 05
1140	1150	9.15088670 23	1.58793890 05
1150	1160	8.9913893D 23	1.54675240 05
1160	1170	8.83525110 23	1.5068458D 05
1170	1180	8.68239790 23	1.46817410 05
1180	1190	8.53275710 23	1.4306937D 05
1190	1200	8.38625700 23	1.3943628D 05
1200	1210	8.24282730 23	1.3591412D 05
1210	1220	8.1023989D 23	1.3249902D 05
1220	1230	7.96490410 23	1.2918726D 05
1230	1240	7.8302763D 23	1.25975250 05
1240	1250	7.6984503D 23	1.22859570 05
1250	1260	7.5693622D 23	1.1983688D 05
1260	1270	7.4429494D 23 7.3191507D 23	1.1690400D 05 1.1405787D 05
1270 1280	1280 1290	7.19790600 23	1.14057870 05 1.1129552D 05
1290	1300	7.0791566D 23	1.08614120 05
1300	1310	6.9628451D 23	1.06010940 05
1,00		00,020,020	1100010710 07

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$.

T = 8000°K

$\lambda_{ exttt{min}}$	$\lambda_{ exttt{max}}$	Qo, Δλ		$N_{O,\Delta\lambda}$
×10 ⁻⁹ m	×10 ⁻⁹ m	Quanta s ⁻¹ m ⁻²	sr^{-1}	$W m^{-2} sr^{-1}$
1310	1320	6.8489154D	23	1.0348334D 05
1320	1330	6.73731250	23	1.0102878D 05
1330	1340	6.62798280	23	9.86448280 04
1340	1350	6.5208738D	23	9.63291310 04
1350	1360	6.41593430	23	9.40794270 04
1360	1370	6.31311430	23	9.18935380 04
1370	1380	6.21236490	23	8.9769365D 04
1380	1390	6.11363830	23	8.7704886D 04
1390 1400	1400 1410	6.0168880D 5.9220685D	23 23	8.56981540 04 8.3747292D 04
1410	1420	5.8291353D	23	8.1850493D 04
1410	1430	5.73804520	23	8.0006014D 04
1430	1440	5.6487559D	23	7.8212175D 04
1440	1450	5.5612260D	23	7.6467359D 04
1450	1460	5.4754153D	23	7.4770003D 04
1460		5.3912845D	23	7.3118604D 04
1470	1470 1480	5.30879540	23	7.15117100 04
1480	1490	5.2279104D	23	6.9947922D 04
1490	1500	5.1485932D	23	6.8425890D 04
1500	1510	5.0708081D	23	6.6944312D 04
1510	1520	4.9945204D	23	6.5501932D 04
1520	1530	4.9196963D	23	6.4097537D 04
1530	1540	4.84630280	23	6.27299580 04
1540	1550	4.7743077D	23	6.1398066D 04
1550	1560	4.70367950	23	6.01007710 04
1560	1570	4.6343877D	23	5.88370210 04
1570	1580	4.5664022D	23	5.7605800D 04
1580	1590	4.4996941D	23	5.6406126D 04
1590	1600	4.4342348D	23	5.52370530 04
1600	1610	4.36999670	23	5.4097664D 04
1610	1620	4.30695270	23	5.2987077D 04
1620	1630	4.2450764D	23	5.1904437D 04
1630	1640	4.1843421D	23	5.08489190 04
1640	1650	4.1247248D	23	4.9819724D 04
1650	1660	4.0661999D	23	4.8816082D 04
1660	1670	4.0087435D	23	4.7837248D 04
1670	1680	3.9523325D	23	4.6882500D 04
1680	1690	3.89694400	23	4.5951143D 04
1690	1700	3.84255590	23	4.5042502D 04
1700	1710	3.7891467D	23	4.41559260 04
1710	1720	3.7366951D	23	4.3290785D 04
1720	1730	3.6851806D	23	4.2446468D 04
1730	1740	3.6345832D	23	4.1622386D 04
1740	1750	3.5848832D	23	4.0817967D 04
1750	1760	3.5360616D	23	4.0032660D 04
1760	1770	3.4880996D	23	3.9265930D 04
1770	1780	3.44097910	23	3.85172570 04
1780	1790	3.3946824D	23	3.7786143D 04
1790	1800	3.3491920D	23	3.7072100D 04
1800	1810	3.30449110	23	3.6374660D 04

R.K.H. Gebel. Blackbody functions. Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$.

Т	=	8000	٥K

$\lambda_{ exttt{min}}$	$\lambda_{ exttt{max}}$	Qo,Δλ	$N_{O,\Delta\lambda}$
$\times 10^{-9}$ m	$\times 10^{-9}$ m	Quanta $s^{-1} m^{-2} sr^{-1}$	$\mathrm{W}~\mathrm{m}^{-2}~\mathrm{sr}^{-1}$
1810	1820	3.2605632D 23	3.56933660 04
1820	1830	3.2173921D 23	3.5027779D 04
1830	1840	3.1749620D 23	3.4377470D 04
1840	185C	3.1332578D 23	3.3742026D 04
1850	1860	3.0922642D 23	3.3121047D 04
1860	1870	3.0519668D 23	3.2514142D 04
1870	1880	3.01235120 23	3.19209370 04
1880	1890	2.9734034D 23	3.1341065D 04
1890	1900	2.9351099D 23	3.0774173D 04
1900	1910	2.8974573D 23	3.0219917D 04
1910	1920	2.8604326D 23	2.9677964D 04
1920	1930	2.8240231D 23	2.9147993D 04
1930	1940	2.7892165D 23	2.8629689D 04
1940	1950	2.7530007D 23	2.8122750D 04
1550	1960	2.7183637D 23	2.7626880D 04
1960	1970	2.6842941D 23	2.7141794D 04
1970	1980	2.6507805D 23	2.6667214D 04
1980	1990	2.6178120D 23	2.62028720 04
1990	200C	2.5853778D 23	2.5748506D 04
2000	2010	2.5534673D 23	2.5303862D 04

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{0,\Lambda\lambda}$ and Radiance $N_{0,\Lambda\lambda}$. $T \,=\, 8000^\circ K$

		1 - 8000 K			
$\lambda_{ exttt{min}}$	$\lambda_{\mathtt{max}}$	$Q_{O,\Delta\lambda}$		$N_{O,\Delta}$	
$\times 10^{-9}$ m	$\times 10^{-9}$ m	Quanta $s^{-1} m^{-2}$	sr ⁻¹	$W m^{-2} sr^{-1}$	
2000	2100	2.41802050	24	2.34517460	05
2100	2200	2.14532230	24		05
2200	2300	1.91161130	24		05
2300	2400	1.71026?00	24		05
2400	2500	1.53593310	24		05
2500	2600	1.38429190	24		05
2600	2700	1.25180250	24		04
2700	2800	1.13556260	24		04
2800	2900	1.03317670	24		04
2900	3000	9.42656870	23		04
3000	3200	1.65319617	24		05
3200	3400	1.39682160	24		04
3400	3600	1.19061610	24)4
3600	3800	1.02293510	24	5.49805910 (04
3800	4000	8.85218710	23	4.5134734D ()4
4000	4200	7.71083330	23	3.7394651D (04
4200	4400	6.7570483D	23	3.1242951D ()4
4400	4600	5.95393090	23	2.6304485D (14
4600	4800	5.27293710	23	2.23034130 ()4
4800	3000	4.6917584D	23)4
500C	5500	9.6924735D	23)4
5500	6000	7.48959700	23)4
6000	5500	5.9062812D	23)4
6500	7000	4.73931000	23)4
7000	7500	3.86043171	23	_)4
7500	6000	3.18600160	23		3
8000	3500	2.65999980	23		3
8500	9000	2.24348410	23)3
9300	4500	1.9095244D	23)3
9500	10000	1.63883610	23		3
10000	11000	2.65020060	23		3
11000	12000	2.03130445	23)3
12000	13000	1.59107270	23)3
13000	1+000	1.26941030	23	1.87161770'0	
14000	15000		23		3
15000	000c1	8 • 45568547	22	1.0853723D 0	3

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$.

$\lambda_{ exttt{min}}$	$\lambda_{ exttt{max}}$	Qo, $\Delta\lambda$		$N_{O,\Delta\lambda}$	
$\times 10^{-9}$ m	$\times 10^{-9}$ m	Quanta s ⁻¹ m ⁻²	sr ⁻¹	$W m^{-2} sr^{-1}$	
300	310	2.7025380D	24	1.7604248D	06
310	320	2.83513930	24	1.78820390	06
320	330	2.95432400	24	1.80606920	06
330	340	3.06012380	24	1.81492710	06
340	350	3.1527782D	24	1.81569880	06
350	360	3.2326889D	24	1.80929250	06
360	370	3.3003806D	24	1.7965840D	06
370	380	3.3564667D	24	1.7784025D	06
380	390	3.4016204D	24	1.7555219D	06
390	400	3.4365510D	24	1.7286563D	06
400	410	3.4619851D	24	1.69845710	06
410	420	3.4786505D	24	1.6655142D	06
420	430	3.4872648D	24	i.6303566D	06
430	44 C	3.4885260D	24	1.5934561D	06
440	450	3.4831057D	24	1.55523020	06
450	460	3.4716446D	24	1.5160460D	06
460	470	3.4547489D	24	1.4762245D	06
470	480	3.4329890D	24	1.436C446D	06
480	490	3.4068981D	24	1.3957470D	06
490	500	3.3769723D	24	1.3555380D	06
500	510	3.3436714D	24	1.3155932D	06
510	520	3.3074196D	24	1.2760611D	06
520	530	3.2686071D	24	1.2370656D	06
530	540	3.2275915D	24	1.1987096D	06
540	550	3.1846994D	24	1.1610770D	06
550	560	3.1402287D	24	1.1242352D	06
560	570	3.0944498D	24	1.0882375D	06
570	580	3.0476078D	24	1.0531245D	06
580	590	2.9999246D	24	1.01892620	06
590	600	2.95159990	24	9.85663120	05
600	610	2.90281340	24	9.53348030	95
610	620	2.8537264D	24	9.2198676D	05
620	630	2.8044831D	24	8.91579370	05
630	640	2.7552122D	24	8.6212105D	05
640	650	2.7060282D	24	8.3360294D	05
650	660	2.65703230	24	8.0601272D	05
660	670	2.60831440	24	7.79335320	05
670	680	2.55995310	24	7.5355337D	05
680	690	2.51201750	24	7.2864768D	05
690 700	700	2.4645678D 2.4176561D	24		05
710	710 720	2.37132740	24 24		05 05
	730	2.325620 OD			
720 730	740	2.32362000 2.2805663D	24 24		05 05
740	750	2.2361933D	24		05
750	760	2.19252350	24		05
760	770	2.14957480	24		05
770	780	2.1073615D	24		05
780	790		24		05
790	800		24		05
170	800	2.02318000	24	2.00144460	00

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$.

		0000	
$\lambda_{ exttt{min}}$	$\lambda_{ exttt{max}}$	Qo,Δλ	$N_{O,\Delta\lambda}$
9	$m \times 10^{-9} m$	Quanta $s^{-1} m^{-2} sr^{-1}$	$\mathrm{W}~\mathrm{m}^{-2}~\mathrm{sr}^{-1}$
800	810	1.9852256D 24	4.90000240 05
810	820	1.94603180 24	4.7443245D 05
820	830	1.9075994D 24	4.5942546D 05
830	840	1.86992690 24	4.44958750 05
840	850	1.8330111D 24	4.31012380 05
850	860	1.79684710 24	4.17566970 05
860	870	1.7614289D 24	4.04603780 05
870	880	1.7267494D 24	3.9210463D 05
880	890	1.6928005D 24	3.80051970 05
890	900	1.65957300 24	3.6842884D 05
900	910	1.62705740 24	3.5721886D 05
910	920	1.5952433D 24	3.46406250 05
920	930	1.5641199D 24	3.3597580D 05
930	940	1.5336758D 24	3.2591283D 05
940	950	1.50389950 24	3.1620325D 05
950	960	1.4747791D 24	3.06833470 05
960	970	1.4463025D 24	2.9779045D 05
970	980	1.4184574D 24	2.8906163D 05
980	990	1.39123140 24	2.80634940 05
990	1000	1.36461210 24	2.7249879D 05
1000	1010	1.3385871D 24	2.6464204D 05
1010	1020	1.3131438D 24	2.5705400D 05
1020	1030	1.2882700D 24	2.4972440D 05
1030	1040	1.2639532D 24	2.4264337D 05
1040	1050	1.24018120 24	2.35801470 05
1050 1060	1060	1.21694190 24	2.2918959D 05
1070	1070 1080	1.1942233D 24 1.1720135D 24	2.2279902D 05 2.1662140D 05
1080	1090	1.17201330 24 1.1503009D 24	2.1062140D 05
1090	1100	1.12907390 24	2.04873210 05
1100	1110	1.1083212D 24	1.9928754D 05
1110	1120	1.0880316D 24	1.93884590 05
1120	1130	1.06819420 24	1.8865756D 05
1130	1140	1.0487982D 24	1.8359991D 05
1140	1150	1.0298331D 24	1.78705390 05
1150	1160	1.0112886D 24	1.73967960 05
1160	1170	9.93154450 23	1.6938186D 05
1170	1180	9.7542083D 23	1.6494155D 05
1180	1190	9.5807800D 23	1.60641710 05
1190	1200	9.4111646D 23	1.5647723D 05
1200	1210	9.2452695D 23	1.5244322D 05
1210	1220	9.0830037D 23	1.4853496D 05
1220	1230	8.9242788D 23	1.4474794D 05
1230	1240	8.7690081D 23	1.4107783D 05
1240	1250	3.61710710 23	1.37520460 05
1250	1260	8.4684934D 23	1.3407181D 05
1260	1270	8.3230863D 23	1.30728070 05
1270	1280	8.1808074D 23	1.27485520 05
1280	1290	8.0415801D 23	1.2434062D 05
1290	1300	7.90532950 23	1.2128997D 05
1300	1310	7.7719830D 23	1.18330290 05

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{O,\Delta\lambda}$ and Radiance $N_{O,\Delta\lambda}$.

$\lambda_{ exttt{min}}$	$\lambda_{ exttt{max}}$	Qo,Δλ	$N_{O,\Delta\lambda}$
×10 ⁻⁹ m	×10 ⁻⁹ m	Quanta $s^{-1} m^{-2} sr^{-1}$	$W m^{-2} sr^{-1}$
1310	1320	7.6414695D 23	1.1545842D 05
1320 1330	1330 1340	7.5137196D 23 7.3886661D 23	1.1267136D 05 1.0996617D 05
1340	1350		
1350	1360	7.2662431D 23 7.1463866D 23	1.07340070 05 1.0479037D 05
1360	1370	7.02903420 23	1.02314480 05
1370	1380	6.9141250D 23	9.9909901D 04
1380	1390	6.80159980 23	9.75742510 04
1390	1400	6.6914010D 23	9.53052220 04
1400	1410	6.58347240 23	9.31005970 04
1410	1420	6.47775920 23	9.09582410 04
1420	1430	6.37420810 23	8.88761010 04
1430	1440	6.27276720 23	8.68521990 04
1440	1450	6.1733860D 23	8.48846310 04
1450	1460	6.0760152D 23	8.29715630 04
1460	1470	5.9806069D 23	8.1111228D 04
1470	1480	5.9871144D 23	7.93019250 04
1480	1490	5.79549220 23	7.75420150 04
1490	1500	5.7056961D 23	7.58299190 04
1500	1510	5.6176830D 23	7.4164114D 04
1510	1520	5.53141080 23	7.2543132D 04
1520	1530	5.44683870 23	7.0965560D 04
1530	1540	5.3639269D 23	6.94300330 04
1540	1550	5.2826366D 23	6.7935237D 04
1550	1560	5.2029300D 23	6.6479903D 04
1560	1570	5.1247704D 23	6.5062807D 04
1570	1580	5.04812190 23	6.3682770D 04
1580	1 590	4.9729497D 23	6.2338653D 04
1590	1600	4.8992197D 23	6.1029356D 04
1600	1610	4.8268989D 23	5.9753820D 04
1610	1620	4.7559550D 23	5.8511019D 04
1620	1630	4.6863566D 23	5.72999670 04
1630	1540	4.6180732D 23	5.6119709D 04
1640	1650	4.5510748D 23	5.4969322D 04
1650	1660	4.48533260 23	5.38479170 04
1660	1670	4.4208181D 23	5.2754634D 04
1670	1680	4.35750380 23	5.16886420 04
1680	1690	4.2953628D 23	5.0649138D 04
1690 1 7 00	1700	4.2343690D 23 4.1744969D 23	4.96353480 04
	1710 1720	4.1744969D 23 4.1157215D 23	4.8646520D 04
1710 1720	1730	4.05801870 23	4.7681931D 04 4.6740879D 04
1730	1740	4.0013648D 23	
1740	1750	3.9457368D 23	4.5822687D 04 4.4926701D 04
1750	1760	3.8911123D 23	4.40522850 04
1760	1770	3.8374693D 23	4.31988280 04
1770	1780	3.78478669 23	4.23657360 04
1780	1790	3.7330433D 23	4.1552435) 04
1790	1800	3.68221920 23	4.07583710 04
1800	1810	3.63229440 23	3.9983006D 04
		200,207,10	317.333333

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$.

$\lambda_{ exttt{min}}$	λ_{max}	Qo, Δλ	$N_{O,\Delta\lambda}$
$\times 10^{-9}$ m	√10"9 m	Quanta $s^{-1} m^{-2} sr^{-1}$	$W m^{-2} sr^{-1}$
1810	1820	3.5832498D 23	3.9225818D 04
1820	1830	3.5350664D 23	3.8486306D 04
1830	1840	3.4877260D 23	3.77639810 04
1840	1850	3.4412106D 23	3.70583720 04
1850	1360	3.39550280 23	3.636902CD 04
1860	1870	3.3505856D 23	3.56954837 04
1870	1880	3.30644230 23	3.503733:0 04
1880	1890	3.2630568D 23	3.4394150D U4
1890	1900	3.2204132D 23	3.3765536D 04
1900	1910	3.1784960D 23	3.3151099D 04
1910	1920	3.1372903D 23	3.2550461D 04
1920	1930	3.0967814D 23	3.1963254D 04
1930	194C	3.0569548D 23	3.1389123D 04
1940	1950	3.0177966D 23	3.0827724D 04
1950	1960	2.9792931D 23	3.0278723D 04
1960	1970	2.9414310D 23	2.9741794D 04
1970	1980	2.9041973D 23	2.9216624D 04
1980	1990	2.8675791D 23	2.87029070 04
1990	2000	2.8315642D 23	2.8200348D 04
2000	2010	2.7961404D 23	2.7708660D 04

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{0,\Lambda\lambda}$ and Radiance $N_{0,\Lambda\lambda}$. $T = 8500^{\circ}K$

		1 - 8300 K		
λ _{min} ×10 ⁻⁹ m	λ _{max} ×10 ⁻⁹ m	$q_{0,\Delta\lambda}$ Quanta s ⁻¹ m ⁻²	sr ⁻¹	$N_{O,\Delta\lambda}$ W m ⁻² sr ⁻¹
2000 2100	2100 2200	2.6459209D 2.3439350D	24 24	2.5662259D 05 2.1674708D 05
2200	2300	2.0857078D	24	1.84286900 05
2300 2400	2400 2500	1.8636879D 1.6718139D	24	1.5765540D 05 1.3564619D 05
2500	2600	1.50518770	24	1.17333060 05
2600	2700	1.35982580	24	1.01998340 05
2700	2800	1.2324684D	24	8.90811990 04
2800	2900	1.12043230	24	7.8139785D 04
2900	3000	1.02149640	24	6.8823361D 04
3000	3200	1.78964630	24	1.1485004D C5
3200 3400	3400 3600	1.5102598D 1.2859248D	24	9-1033318D 04 7-3073052D 04
3600	3800	1.10377090	24	5. 9325582D 04
3800	4000	9.54362990	23	4.8560367D 04
4.500	4200	8.3068165D	23	4.0285064D 04
4200	4400	7.2743323D	23	3.3634831D 04
4400	4600	6.40575990	23	2.3300729D 04
4600	4800 5000	5.66988700	23	2.39824730 04
4800 5000	5000 5 50 0	5.0423557D 1.0408679D	23 24	2.0456589D 04 3.9505932D 04
5500	6000	8.03517380	23	2.7832244D 04
6000	6500	6.33137350	23	2.0168791D 04
6500	7000	5.07632280	23	1.4970395D 04
7000	7500	4.13300380	23	1.1343929D 04
7500	8000	3.40921720	23	8.7519824D 03
8000	8500	2.8449788D	23	6.3597870D 03
8500 9000	9000 3500	2.3986541D 2.0409908D	23 23	5.4524081D 03 4.3881369D 03
9500	10000	1.75102790	23	3.57131780 03
10000	11000	2.83049940	23	5.37190570 03
11000	12000	2.16843340	23	3.75579520 03
12000	13000	1.69786680	23	2.7044085D 03
13000	14000	1.35416790	23	1.9965880D 03
14000	15000	1.09732770	23	1.5059642D 03
15000	16000	9.0154995D	22	1.15723150 03

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$. $T=9000^{\circ}K$

		1 - 9000 K	
$\lambda_{ exttt{min}}$	$\lambda_{ exttt{max}}$	Qo, Δλ	$N_{O,\Delta\lambda}$
×10 ⁻⁹ m	$\times 10^{-9}$ m	Quanta s^{-1} m^{-2} sr^{-1}	$W m^{-2} sr^{-1}$
300	310	3.6836894D 24	2.3996087D 06
310	320	3.8276197D 24	2.4142490D 06
320	330	3.95296480 24	2.4166228D 06
330	340	4.0602979D 24	2.4081685D 06
340	350	4.1503914D 24	2.3902727D 06
350	360	4.2241595D 24	2.3642452D 06
360	370	4.2826100D 24	2.3313032D 06
370	380	4.3268053D 24	2.2925628D 06
380	390	4.3578305D 24	2.24903610 06
390	400	4.3767692D 24	2.2016320D 06
400	410	4.3846843D 24	2.1511593D 06
410	420	4.3826042D 24	2.0983323D 06
420	430	4.3715125D 24	2.04377730 06
430	440	4.3523414D 24	1.9880393D 06
440	450	4.3259671D 24	1.9315894D 06
450	460	4.2932081D 24	1.87483210 06
460	470	4.2548240D 24	1.8181120D 06
470	480	4.2115168D 24	1.7617203D 06
480	490	4.16393170 24	1.7059012D 06
490	500	4.1126597D 24	1.6508572D 06
500	510	4.05823990 24	1.5967545D 06
510	520	4.00116250 24	1.54372730 06
520	530	3.9418717D 24	1.4918825D 06
530 540	540 550	3.8807689D 24 3.8182157D 24	1.4413027D 06 1.3920502D 06
5 5 0	560	3.8192157D 24 3.7545369D 24	1.3920502D 06 1.3441695D 06
560	570	3.6900235D 24	1.2976902D 06
570	580	3.6249353D 24	1.2526290D 06
580	590	3.5595038D 24	1.20899170 06
590	600	3.49393430 24	1.16677510 06
600	510	3.4284086D 24	1.1259686D 06
610	520	3.3630870D 24	1.0865550D 06
620	630	3.2981102D 24	1.04851230 06
630	640	3.2336015D 24	1.01181430 06
640	650	3.1696680D 24	9.76431490 05
650	660	3.10640250 24	9.42331700 05
660	670	3.0438848D 24	9.0948097D 05
670	680	2.9821832D 24	8.7784384D 05
680	690	2.9213555D 24	8.4738393D 05
600	700	2.8614500D 24	8.1806426D 05
700	710	2.8025068D 24	7.8984759D 05
710	720	2.7445583D 24	7.6269666D 05
720	730	2.6876304D 24	7.3657447D 05
730	740	2.6317431D 24	7.1144440D 05
740	750	2.57691090 24	6.87270400 05
750	760	2.5231438D 24	6.64017100 05
760	770	2.4704475D 24	6.4164990D 05
170	780	2.4188244D 24	6.20135050 05
780	790	2.3682732D 24	5.9943971D 05
790	800	2.3187901D 24	5.7953199D 05

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{O_1, \Delta\lambda}$ and Radiance $N_{O_1, \Delta\lambda}$.

		. , , , , , , , , , , , , , , , , , , ,	
$\lambda_{ exttt{min}}$	$\lambda_{ exttt{max}}$	Qo, Δλ	N_{Ω_1, Δ_2}
×10 ⁻⁹ m	$\times 10^{-9}$ m	Quanta $s^{-1} m^{-2} sr^{-1}$	W m ⁻² sr ⁻¹
800	810	2.2703689D 24	5.6038097D 05
810	820	2.22300100 24	5.4195674D 05
620	830	2.1766762D 24	5.2423038D 05
830	840	2.1313825D 24	5.0717399D 05
840	850	2.0871067D 24	4.9076066D 05
850	860	2.0438342D 24	4.74964470 05
069	870	2.00154990 24	4.5976048D 05
870 880	880 890	1.9602373D 24 1.9198797D 24	4.4512470D 05
890	900	1.8804596D 24	4.3103408D 05 4.1746649D 05
900	910	1.8419592D 24	4.0440066D 05
910	920	1.8043604D 24	3.91816220 05
920	930	1.7676448D 24	3.7969360D 05
930	940	1.7317938D 24	3.6801405D 05
940	950	1.69678910 24	3.5675960D 05
950	960	1.66261180 24	3.45913020 05
960	970	1.6292436D 24	3.35457830 05
970	980	1.5966659D 24	3.2537822D 05
980	990	1.5648605D 24	3.1565906D 05
990	1000	1.53380920 24	3.0628585D 05
1000	1010	1.50349400 24	2.9724473D 05
1010	1020	1.47389730 24	2.8852240D 05
1020	1030	1.4450017D 24	2.8010616D 05
1030	1040	1.41678980 24	2.71983840 05
1040	1050	1.38924490 24	2.64143770 05
1050	1060	1.36235030 24	2.56574520 05
1060	1070	1.33608970 24	2.4926530D 05
1070	1080	1.3104472D 24 1.2854071D 24	2.42207990 05
1080 1090	1090 1100	1.2854071D 24 1.2609541D 24	2.3539011D 05 2.2880330D 05
1100	1110	1.23707330 24	2.2243858D 05
1110	1120	1.21374990 24	2.1628737D 05
1120	1130	1.19096970 24	2.10341450 05
1130	1140	1.1687186D 24	2.04592950 05
1140	1150	1.1469831D 24	1.99034320 05
1150	1160	1.1257498D 24	1.9365834D 05
1160	1170	1.1050057D 24	1.8845809D 05
1170	1180	1.0847382D 24	1.83426940 05
1130	1190	1.0649349D 24	1.7855855U 05
1190	1200	1.0455838D 24	1.73846820 05
1200	1210	1.0266731D 24	1.6928593D 05
1210	1220	1.0081916D 24	1.6487029D 05
1220	1230	9.9012793D 23	1.60594520 05
1230	1240	9.72471430 23	1.5645350D 05
1240	1250	9.55211510 23	1.5244230D 05
1250	1260	9.38337930 23	1.4855618D 05
1260	1270	9.21840720 23	1.4479062D 05
1270	1280	9.05710170 23	1.41141280 05
1280 1290	1290	8.8993684D 23	1.37603960 05
1300	1300 1310	8.7451154D 23 8.5942535D 23	1.34174680 05
1300	1310	0.27462320 63	1.3084958D 05

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{0,\Lambda\lambda}$ and Radiance $N_{0,\Lambda\lambda}$.

$\lambda_{ exttt{min}}$	$\lambda_{ exttt{max}}$	$Q_{O,\Delta\lambda}$		$N_{O,\Delta\lambda}$	
$\times 10^{-9}$ m	$\times 10^{-9}$ m	Quanta s ⁻¹ m ⁻²	sr ⁻¹	$W m^{-2} sr^{-1}$	
1310	1320	8.4466957D	23	1.2762498D	05
1320	1330	8.30235760	23	1.2449734D	05
1330	1340	8.16115700	23	1.21463250	05
1340	1350	8.02301400	23	1.1851944D	05
1350	1360	7.88785090	23	1.1566279D	05
1360	1370	7.7555921D	23	1.1289026D	05
1370	1380	7.6'61643D	23	1.10198970	05
1380	1390	7.4994959D	23	1.0758614D	05
1390	1400	7.3755176D	23	1.05049070	05
1400	1410	7.2541618D	23	1.0258521D	05
1410	1420	7.1353630D	23	1.00192080	05
1420	1430	7.01905720	23	9.7867303D	04
1430	1440	6.90518240	23	9.5608584D	04
1440	1450	6.79367830	23	9.34137250	04
1450	1460	6.6944862D	23	9.1280609D	04
1460	1470	6.5775491D	23	8.9207197D	04
1470	1480	6.4728115D	23	8.7191528D	04
1480	1490	6.37021940	23	8.5231713D	04
1490	1500	6.2697204D	23 23	8.3325935D	04
1500 1510	1510 1520	6.1712634D 6.0747989D	23	8.1472443D 7.9669550D	04
1520	1530	5.98027870	23	7.7915633D	04
1530	1540	5.8876557D	23	7.6209127D	04
1540	1550	5.7968843D	23	7.4548524D	04
1550	1560	5.70792010	23	7.29323710	04
1560	1570	5.6207199D	23	7.1359268D	04
1570	1580	5.53524170	23	6.9827865D	04
1580	1590	5.4514446D	23	6.83368590	04
1590	1600	5.3692889D	23	6.6884995D	04
1600	1610	5.28873580	23		04
1610	1620	5.2097476D	23	6.4093895D	04
1620	1630	5.1322877D	23	6.27523630	04
1630	1640	5.0563205D	23	6.1445380D	04
1640	1650	4.9818111D	23		04
1650	1660	4.9087259D	23	5.89309020	04
1660	1670	4.8370319D	23	5.7721415D	04
1670	168C	4.7666972D	23	5.6542493D	04
1680	1690	4.6976905D	23		04
1690	1700	4.6299814D	23	5.4272729D	04
1700	1710		23		04
1710	1720		23		04
1720	1730		23		04
1730	1740		23		04
1740	1750		23		04
1750	1760		23		04
1760	1770		23		04
1770	1780		23	4.62482790	04
1780	1790		23		04
1790	1800		23	4.44765550	04
1800	1810	3.9629046D	23	4.3622248D	04

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{O_1,\Delta\lambda}$ and Radiance $N_{O_1,\Delta\lambda}$.

$\lambda_{ exttt{min}}$	$\lambda_{ exttt{max}}$	$Q_{O,\Delta\lambda}$	$N_{O,\Delta\lambda}$
$\times 10^{-9}$ m	$\times 10^{-9}$ m	Quanta $s^{-1} m^{-2} sr^{-1}$	$\mathrm{W}~\mathrm{m}^{-2}~\mathrm{sr}^{-1}$
1810	1820	3.9086694D 23	4.27881890 04
1820	1830	3.8554022D 23	4.1973809D 04
1830	1840	3.8030820D 23	4.1178559D 04
1840	1850	3.7516884D 23	4.0401907D 04
1850	1860	3.7012012D 23	3.9643339D 04
1860	1870	3.6516010D 23	3.8902355D 04
1870	1880	3.6028689D 23	3.8178473D 04
1880	1890	3.5549862D 23	3.7471226D 04
1890	1900	3.5079349D 23	3.6780160D 04
1900	1910	3.4616975D 23	3.6104838D 04
1910	1920	3.4162566D 23	3.5444833D 04
1920	1930	3.3715955D 23	3.4799735D 04
1930	1940	3.3276980D 23	3.4169145D 04
1940	1950	3.2845480D 23	3.3552674D 04
1950	1960	3.2421300D 23	3.29499500 04
1960	1970	3.2004287D 23	3.2360608D 04
1970	1980	3.1594295D 23	3.1784297D 04
1980	1990	3.1191177D 23	3.1220674D 04
1990	2000	3.0794794D 23	3.0669408D 04
2000	2010	3.0405008D 23	3.0130178D 04

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{O,\Delta\lambda}$ and Radiance $N_{O,\Delta\lambda}$.

$\lambda_{ exttt{min}}$	λ_{max}	Q ο,Δλ	$N_{O,\Delta\lambda}$
$\times 10^{-9}$ m	$\times 10^{-9}$ m	Quanta s^{-1} m^{-2} sr^{-1}	$W m^{-2} sr^{-1}$
2000	2100	2.8753402D 24	2.7887512D 05
2100	2200	2.5437518D 24	2.35225590 05
2200	2300	2.2607686D 24	1.9975560D 05
2300	2400	2.0178932D 24	1.7070076D 05
2400	2500	1.8083300D 24	1.4672319D 05
2500	2600	1.62660540 24	1.2679823D 05
2600	2700	1.4682810D 24	1.1013367D 05
2700	2800	1.3297341D 24	9.6111653D 04
2800	2900	1.2079896D 24	8.4246272D 04
2900	3000	1.10059050 24	7.4152464D 04
3000	3200	1.9264965D 24	1.2363313D 05
3200	3400	1.6239916D 24	9.7889179D 04
3400	3600	1.3814528D 24	7.8501787D 04
3600	3800	1.1847730D 24	6.3679520D 04
3800	4000	1.0236354D 24	5.2192535D 04
4000	4200	8.9037987D 23	4.3180324D 04
4200	4400	7.7924047D 23	3.6030358D 04
4400	4600	6.8582178D 23	3.0299751D 04
4600	4800	6.0673433D 23	2.5663676D 04
480C	5000	5.3933645D 23	2.18807540 04
5000	5500	1.11256210 24	4.2227388D 04
5500	6000	8.5812179D 23	2.97233000 04
6000	6500	6.7567737D 23	2.15240110 04
6500	7000	5.4147451D 23	1.59665920 04
7000	7500	4.4057226D 23	1.2092498D 04
7500	8000	3.6325378D 23	9.3253016D 03
8000	8500	3.0301435D 23	7.3062682D 03
8500	9000	2.5538813D 23	5.80526590 03
9000	9500	2.1724004D 23	4.67067430 03
9500	10000	1.8632530D 23	3.80021130 03
10000	11000	3.01084450 23	5.71419670 03
11000	12000	2.3057039D 23	3.9934597D 03
12000	13000	1.8046802D 23	2.8745498D 03
13000	14000	1.43893860 23	2.12157770 03
14000	15000	1.1657278D 23	1.5998381D 03
15000	16000	9.57537950 22	1.22909920 03

R.K.H. Gebel, Blackbody functions.

Blackbody Quantum Radiance $Q_{O\,,\Delta\lambda}$ and Radiance $N_{O\,,\Delta\lambda}$.

T = 9500°K

$\lambda_{ exttt{min}}$	λ _{max}	$Q_{O,\Delta\lambda}$	$N_{O,\Delta\lambda}$
×10 ⁻⁹ m	×10 ⁻⁹ m	Quanta $s^{-1} m^{-2} sr^{-1}$	$W m^{-2} sr^{-1}$
300	310	4.8621095D 24	3.1673249D 06
310	320	5.00923290 24	3.1596136D 06
320	330	5.13222520 24	3.13761900 06
330	340	5.2323801D 24	3.1033879D 06
340	350	5.3111496D 24	3.05882100 06
350	360	5.37007750 24	3.00565600 06
360	370	5.4107466D 24	2.94546170 06
370	380	5.4347384D 24	2.87963870 06
380	390	5.4436024D 24	2.80942560 06
390	400	5.4388329D 24	2.73590770 06
400	410	5.4218540D 24	2.6600288D 06
410	420	5.3940088D 24	2.58260290 06
420	430	5.3565535D 24	2.5043266D 06
430	440	5.3106545D 24	2.4257915D 06
440	450	5.257388 - 24	2.34749570 06
450	460	5.19774. 24	2.26985490 06
460	470	5.13261770 24	2.1932125D 06
470	480	5.0628364D 24	2.1178485D 06
480	490	4.98914090 24	2.0439885D 06
490 500	500 510	4.9122016D 24 4.8326218D 24	1.9718105D 06 1.9014519D 06
510	520	4.8326218D 24 4.7509418D 24	1.9014519D 06 1.8330153D 06
520	530	4.6676448D 24	1.7665738D 06
530	540	4.58316090 24	1.7021752D 06
540	550	4.49787190 24	1.6398463D 06
550	560	4.4121158D 24	1.5795963D 06
560	570	4.3261906D 24	1.5214196D 06
570	580	4.2403581D 24	1.46529850 06
580	590	4.1548474D 24	1.4112054D 06
590	600	4.0698581D 24	1.3591048D 06
600	610	3.9855634D 24	1.3089546D 06
610	620	3.9021127D 24	1.2607081D 06
620	630	3.8196337D 24	1.2143144D 06
630	640	3.7382355D 24	1.16972020 06
640	650	3.6580097D 24	1.1268700D 06
650	660	3.5790330D 24	1.08570710 06
660	670	3.5013685D 24	1.0461744D 06
670	680	3.4250670D 24	1.0082143D 06
680	690	3.3501690D 24	9.7176961D 05
690 700	700 710	3.2767054D 24 3.2046988D 24	9.36783860 05 9.03201290 05
710	720	3.1341644D 24	8.7096727D 05
720	730	3.06511100 24	8.4002840D 05
730	740	2.9975419D 24	8.1033267D 05
740	750	2.93145510 24	7.8182956D 05
750	760	2.8668448D 24	7.5447007D 05
760	770	2.80370110 24	7.28206320 05
770	780	2.7+20109D 24	7.0299405D 05
780	790	2.6817587D 24	6.7878762D 05
790	800	2.6229263D 24	6.55545040 05

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{O_1,\Delta\lambda}$ and Radiance $N_{O_1,\Delta\lambda}$.

T = 9500°K

$\lambda_{ exttt{min}}$	λ	$Q_{O,\Delta\lambda}$	$N_{O,\Delta\lambda}$
	λ _{max}		$W m^{-2} sr^{-1}$
×10 ⁻⁹ m	×10 ⁻⁹ m	Quanta $s^{-1} m^{-2} sr^{-1}$	Wmfsrf
800	810	2.5654937D 24	6.33225440 05
810	820	2.5094391D 24	6.1178954D 05
820	830	2.45473940 24	5.9119965D 05
830	84 C	2.4013703D 24	5.7141960D 05
840	850	2.34930690 24	5.5241472D 05
850	860	2.29852320 24	5.3415182D 05
860	87C	2.2489928D 24	5.1659911D 05
870	880	2.2006890D 24	4.9972615D 05
880	890	2.1535849D 24	4.8350385D 05
890	900	2.10765330 24	4.6790438D 05
900	910	2.0628670D 24	4.5290113D 05
910	920	2.0191991D 24	4.3846868D 05
920	930	1.97662250 24	4.2458273D 05
930	940	1.9351107D 24	4.1122006D 05
940	950	1.89463710 24	3.9835852D 05
950	960	1.85517560 24	3.8597691D 05
950	970	1.8167004D 24	3.7405503D 05
970	980	1.77918630 24	3.62573540 05
980	990	1.7426083D 24	3.5151402D 05
990	1000	1.70694190 24	3.4085885D 05
1000	1010	1.67216310 24	3.30591210 05
1010	1020	1.63824830 24	3.2069504D 05
1020	1030	1.6051746D 24	3.1115500D 05
1030	1040	1.5729193D 24	3.01956460 05
1040 1050	1050 1060	1.5414606D 24 1.5107769D 24	2.9308541D 05 2.8452850D 05
1060	1070	1.5107769D 24 1.4808473D 24	2.8452850D 05 2.7627297D 05
1070	1080	1.4516511D 24	2.68306610 05
1080	1090	1.4231686D 24	2.60617790 05
1090	1100	1.39538030 24	2.5319536D 05
1100	1110	1.36826720 24	2.46028700 05
1110	1120	1.34181090 24	2.39107630 05
1120	1130	1.31599350 24	2.32422440 05
1130	1140	1.29079740 24	2.2596383D 05
1140	1150	1.26620570 24	2.19722920 05
1150	1160	1.24220190 24	2.13691210 05
1160	1170	1.2187700D 24	2.07860580 05
1170	1180	1.19589420 24	2.02223250 05
1180	1190	1.17355950 24	1.96771790 05
1190	1200	1.15175110 24	1.91499070 05
1200	1210	1.13045460 24	1.86398290 05
1210	1220	1.10965630 24	1.8146293D 05
1220	1230	1.08934240 24	1.7668674D 05
1230	1240	1.06950010 24	1.72063740 05
1240	1250	1.0501164D 24	1.67588210 05
1250	1260	1.03117900 24	1.63254670 05
1260	1270	1.01267590 24	1.59057860 05
1270	1280	9.9459540D 23	1.54992740 05
1280	1290	9.7692624D 23	1.5105449D 05
1290	1300	9.59657390 23	1.47238480 05
1300	1310	9.4277817D 23	1.4354028D 05

R.K.H. Gebel. Blackbody functions.

Blackbody Quantum Radiance $\mathtt{Q}_{0,\Lambda\lambda}$ and Radiance $\mathtt{N}_{0,\Lambda\lambda}$.

 $T = 9500^{\circ} K$

	_	-	
$\lambda_{ t min}$	$^{\lambda}$ max	Q ο,Δλ	$N_{O,\Delta\lambda}$
×10 ⁻⁹ m	$\times 10^{-9}$ m	Quanta s^{-1} m^{-2} sr^{-1}	$\mathrm{W}~\mathrm{m}^{-2}~\mathrm{sr}^{-1}$
1310	1320	9.2627822D 23	1.3995564D 05
1320	1330	9.1014748D 23	1.36480470 05
1330	1340	8.9437619D 23	1.33110860 05
1340	1350	8.78954870 23	1.2984305D 05
1350	1360	8.63874310 23	1.26673450 05
1360	1370	8.4912558D 23	1.2359859D 05
1370	1380	8.3470000D 23	1.2061516D 05
1380	1390	8.2058916D 23	1.1771996D 05
1390	1400	8.0678488D 23	1.14909930 05
1400	1410	7.9327922D 23	1.12182130 05
1410	1420	7.8006447D 23	1.0953374D Q5
1420	1430	7.6713316D 23	1.0696204D 05
1430	1440	7.5447801D 23	1.0446442D 05
1440	1450	7.42091970 23	1.0203837D 05
1450	1460	7.2996818D 23	9.9681483D 04
1460	1470	7.1810000D 23	9.7391439D 04
1470	1480	7.0648095D 23	9.5166007D 04
1480	1490	6.95104760 23	9.3003042D 04
1490	1500	6.8396533D 23	9.0900479D 04
1500	1510	6.7305674D 23	8.88563330 04
1510	1520	6.6237322D 23	8.6868692D C4
1520	1530	6.519092CD 23	8.4935716D 04
1530	1540	6.4165923D 23	8.3055632D 04
1540	1550	6.31618040 23	8.1226736D 04
1550	1560	6.2178050D 23	7.9447384D 04
1560	1570	6.1214162D 23	7.7715993D 04
1570	1580	6.0269655D 23	7.60310390 04
1580 1590	1590 1600	5.9344058D 23	7.4391052D 04
1600		5.8436915D 23 5.7547779D 23	7.27946160 04
1610	1610 1620	5.7547779D 23 5.6676217D 23	7.1240365D 04 6.9726985D 04
1620	1630	5.5821810D 23	6.8253205D 04
1630	1640	5.4984147D 23	6.6817802D 04
1640	1650	5.4162831D 23	6.5419595D 04
1650	1660	5.3357475D 23	6.4057446D 04
1660	1670	5.2567703D 23	6.27302560 04
1670	1680	5.1793148D 23	6.1436964D 04
1680	1690	5.10334550 23	6.01765470 04
1690	1700	5.0288276D 23	5.8948016D 04
1700	1710	4.9557275D 23	5.7750418D 04
1710	172C	4.8840123D 23	5.65828320 04
1720	1730	4.8136501D 23	5.5444367D 04
1730	1740	4.7446099D 23	5.43341650 04
1740	175C	4.6768614D 23	5.3251395D 04
1750	1760	4.6103751D 23	5.2195255D 04
1760	1770	4.5451225D 23	5.1164969D 04
1770	1780	4.4810756D 23	5.01597890 04
1780	1790	4.4182071D 23	4.9178990D 04
1790	1800	4.3564903D 23	4.8221871D 04
1800	1810	4.2959008D 23	4.7287756D 04

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{0,\Lambda\lambda}$ and Radiance $N_{0,\Lambda\lambda}$.

T	=	9	5	0	0	0	K

$\lambda_{ exttt{min}}$	$\lambda_{ exttt{max}}$	$Q_{O,\Delta\lambda}$	$N_{O,\Delta\lambda}$
$\times 10^{-9}$ m	$\times 10^{-9}$ m	Quanta s^{-1} m^{-2} sr^{-1}	$W m^{-2} sr^{-1}$
1810	1820	4.2364120D 23	4.6375989D 04
1820	1830	4.1779999D 23	4.54859380 04
1830	1840	4.1206409D 23	4.4616988D 04
1840	1850	4.0643116D 23	4.3768548D 04
1850	1860	4.0089895D 23	4.29400440 04
1860	1870	3.9546526D 23	4.21309200 04
1870	1880	3.9012794D 23	4.13406390 04
1880	1890	3.8488490D 23	4.0568681D 04
1890	1900	3.7973410D 23	3.98145410 04
1900	1910	3.7467356D 23	3.9077733D 04
1910	1920	3.69701340 23	3.8357784D 04
1920	1930	3.6481555D 23	3.7654236D 04
1930	1940	3.6001435D 23	3.6966646D 04
1940	1950	3.5529596D 23	3.62945840 04
1950	1960	3.5065861D 23	3.5637635D 04
1960	1970	3.4610060D 23	3.4995394D 04
1970	1980	3.41620270 23	3.4367472D 04
1980	1990	3.3721599D 23	3.37534900 04
1990	2000	3.3288618D 23	3.3153079D C4
2000	2010	3.2862930D 23	3.25658850 04

R.K.H. Gebel. Blackbody functions.

Blackbody Quantum Radiance $Q_{O_1,\Delta\lambda}$ and Radiance $N_{O_1,\Delta\lambda}$.

T = 9500°K

λ _{min}	λ _{max}	Qο,Δλ	- 1	$N_{O,\Delta\lambda}$	
×10 ^{−9} m	$\times 10^{-9}$ m	Quanta $s^{-1} m^{-2}$	sr ⁻¹	$\mathrm{W}\mathrm{m}^{-2}\mathrm{sr}^{-1}$	
2000	2100	3.10604810	24	3.01252670	05
2100	2200	2.74458950	24	2.5379854D	C 5
2200	2300	2.43664640	24	2.15296520	05
2300	2400	2.17275850	24	1.9380196D	05
2400	2500	1.94538380	24	1.5784383D	05
2500	2600	1.74846480	24	1.36297840	05
2600	2700	1.5771016D	24	1.18296420	05
2700	2800	1.4273041D	24	1.03164110	05
2800	2900	1.29580220	24	9.0370556D	C4
2900	3000	1.17939980	24	7.94960650	04
3000	3200	2.06368460	24	1.32437920	05
3200	400د	1.73797120	24	1.04759990	05
3400	3600	1.47716580	24	8.39410460	04
3600	3800	1.2659156D	24	6.8041011D	04
800د	+000	1.09301595	24	5.5730216D	04
4000	4200	9.50162390	23	4.60796730	04
4200	4400	8.31114210	23	3.8428961D	04
4400	4600	7.31120590	23	3.2301118D	04
4600	4800	6.46522680	23	2.7346686D	04
4800	5000	5.7447204D	23	2.33062270	04
5000	5500	1.18431840	24	4.49512040	04
5500	6000	9.1276558D	23	3.1616722D	04
6000	6500	7.18243350	23	2.2880058D	04
5500	7000	5.75274400	23	1.6963310D	04
7000	7500	4.6785648D	23	1.28414070	04
7 500	8000	3.85594690	23	9.9988482D	03
8000	8500	3.21537300	23	7.75290550	03
8500	9000	2.70915680	23	6.15823340	03
9000	9500	2.30384660	23	4.95329020	03
9500	10000	1.97550620	23	4.0291621D	03
10000	11000	3.19122870	23	6.0565620D	03
11000	12000	2.44294320	23	4.2311671D	03
12000	13000	1.91150980	23	3.0447171D	03
13000	14000	1.52372050	23	2.2465838D	03
14000	15000	1.23413560	23	1.69372260	03
15000	16000	1.01353150	23	1.30097390	03

R.K.H. Gebel. Blackbody functions. Blackbody Quantum Radiance $Q_{0,\Lambda\lambda}$ and Radiance $N_{0,\Lambda\lambda}$.

		1 10000 K			
λ_{\min}	$\lambda_{ exttt{max}}$	Qo, AA		$N_{O,\Delta\lambda}$	
×10 ^{−9} m	$\times 10^{-9}$ m	Quanta $s^{-1} m^{-2}$	sr ⁻¹	$W m^{-2} sr^{-1}$	
300	310	6.2447337D	24	4.0680957Ü	06
310	320	6.3848499D	24	4.0273734D	06
320	330	6.49518210	24	3.9709417D	06
330	340	6.5779070D	24	3.9014989D	06
340	350	6.63528150	24	3.8214769D	06
350	360	6.66957420	24	3.7330400D	06
360	370	6.6830126D	24	3.6380929D	06
370	38C	6.6777459D	24	3.5382958D	06
380	390	6.6558188D	24	3.4350821D	06
390	400	6.6191544D	24	3.3296791D	06
400	410	6.56954470	24	3.2231285D	06
410	420	6.5086463D	24	3.1163067D	06
420	430	6.4379802D	24	3.0099441D	06
430	440	6.3589346D	14	2.9046434D	06
440	45C	6.2727702D	24	2.8008960D	06
450	460	6.1806260D	24	2.6990971D	06
460	47C	6.0835271D	24	2.5995591D	06
470	480	5.9823924D	24	2.5025236D	06
480	490	5.8780422D	24	2.4081721D	06
490	500	5.7712064D	24	2.3166349D	06
500	510	5.66253230	24	2.22799960	06
510	520	5.5525915D	24	2.14231770	06
520	530	5.4418872D	24	2.0596109D	06
530	540	5.3308609D	24	1.9798763D	06
540	550	5.2198978D	24	1.9030909D	06
550	560	5.1093334D	24	1.82921540	06
560	570	4.9994578D	24	1.75819720	06
570	580	4.8905208D	24	1.6899736D	06
580	590	4.7827364D	24	1.62447400	06
590	600	4.6762864D	24	1.56162180	06
600	610	4.5713239D	24	1.5013360D	06
610	620 630	4.4679768D 4.3663505D	24	1.4435327D 1.3881262D	06 06
620 630	640	4.2665307D	24	1.33503020	06
640	650	4.1685853D	24	1.2841581D	06
650	660	4.07256710	24	1.23542400	06
660	670	3.9785151D	24	1.1887432D	06
670	680	3,8864566D	24	1.1440324D	06
680	690	3.7964084D	24	1.1012102D	06
690	70C	3.7083783D	24	1.06U1973D	06
700	710	3.6223663D	24	1.0209168D	06
710	720	3.5383656D	24	9.8329396D	05
720	730	3.4563635D	24	9.4725684D	05
730	74 C	3.3763425D	24	9.12735900	05
740	750	3.2982804D	24	8.7966424D	05
750	760	3.2221519D	24	8.4797753D	05
760	770	3.1479282D	24	8.1761404D	05
770	780	3.07557840	24	7.8851457D	05
780	790	3.0050691D	24	7.60622420	05
790	800	2.9363657D	24	3388331D	05

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{O_1,\Delta\lambda}$ and Radiance $N_{O_1,\Delta\lambda}$.

$\lambda_{ exttt{min}}$	$\lambda_{ exttt{max}}$	$Q_{O,\Delta\lambda}$	$N_{O,\Delta\lambda}$
×10 ⁻⁹ m	×10 ⁻⁹ m	Quanta $s^{-1} m^{-2} sr^{-1}$	
800	810	2.8694319D 24	7.0824536D 05
810	820	2.8042306D 24	6.8365895D 05
820	830	2.74072380 24	6.60076730 05
830	840	2.6788731D 24	6.3745346D 05
840	850	2.6186398D 24	6.1574600D 05
850	860	2.559985CD 24	5.94913170 05
860	870	2.50286990 24	5.74915730 05
870	880	2.44725590 24	5.5571625D 05
880	890	2.3931046D 24	5.37279070 05
890 900	900 910	2.3403779D 24 2.2890384D 24	5.1957019D 05 5.0255723D 05
910	920	2.23904890 24	4.86209330 05
420	930	2.19037310 24	4.7049709D 05
930	940	2.14297520 24	4.55392510 05
940	950	2.09682000 24	4.4086891D 05
950	960	2.0518731D 24	4.2690088D 05
960	970	2.00810090 24	4.13464210 05
973	980	1.96547030 24	4.0053584D 05
980	990	1.9239492D 24	3.88093790 05
990	1000	1.88350630 24	3.76117130 05
1000	1010	1.84411090 24	3.64585920 05
1010 1020	1020 1030	1.8057330D 24 1.7683438D 24	3.5348115D 05 3.4278468D 05
1030	1040	1.73191480 24	3.32479270 05
1040	1050	1.69641860 24	3.22548440 05
1050	1060	1.6618283D 24	3.12976510 05
1060	1370	1.62811790 24	3.03/4849D 05
1070	1080	1.59526210 24	2.94850130 05
1080	1090	1.5632364D 24	2.86267800 05
1090	1100	1.53201690 24	2.7798852D 05
1100	1110	1.5015804D 24	2.6999990D 05
1110	1120	1.47190450 24	2.62290090 05
1120	1130	1.44296720 24	2.54847820 05
1130 1140	1140 1150	1.4147475D 24 1.3872248D 24	2.4766231D 05 2.4072326D 05
1150	1160	1.36037910 24	2.34020840 05
1160	1170	1.33419120 24	2.2754568D 05
1170	1180	1.30864230 24	2.21288790 05
1180	1190	1.28371430 24	2.15241600 05
1190	1200	1.25938950 24	2.0939593D 05
1200	1210	1.23565090 24	2.0374393D 05
1210	1220	1.21248190 24	1.9827812D 05
1220	1230	1.1898664D 24	1.92991350 05
1230	1240	1.16778900 24	1.87876750 05
1240	1250	1.14623460 24	1.82927770 05
1250 1260	1260	1.12518850 24 1.10463650 24	1.7813815D 05 1.7350187D 05
1270	1270 1280	1.08456510 24	1.7350187D 05 1.6901319D 05
1280	1290	1.06496080 24	1.64666610 05
1290	1300	1.0458107D 24	1.6045686D 05
1300	1310	1.02710250 24	1.56378890 05

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$.

$\lambda_{ exttt{min}}$	$\lambda_{ exttt{max}}$	$Q_{O,\Delta\lambda}$	$N_{O,\Delta\lambda}$
$\times 10^{-9}$ m	×10 ⁻⁹ m	Quanta $s^{-1} m^{-2} sr^{-1}$	$W m^{-2} sr^{-1}$
1310	1320	1.00882380 24	1.52427860 05
1320	1330	9.90963100 23	1.48599140 05
1330	1340	9.7350889D 23	1.4488828D 05
1340	1350	9.5645017D 23	1.41291020 05
1350	1360	9.3977624D 23	1.37803290 05
1360	1370	9.2347672D 23	1.3442116D 05
1370	1380	9.07541550 23	1.31140870 05
1380	1390	8.9196099D 23	1.2795882D 05
1390	1400	8.7672557D 23	1.2487156D 05
1400	1410	8.6182612D 23	1.2187576D 05
1410	1420	8.4725375D 23	1.1896822D 05
1420	1430	8.3299983D 23	1.1614590D 05
1430	1440	8.1905600D 23	1.13405850 05
1440	1450	8.0541413D 23	1.1074524D 05
1450	1460	7.9206635D 23	1.08161370 05
1460	1470	7.7900502D 23	1.0565162D 05
1470	1480	7.6622273D 23	1.0321349D 05
1480	1490	7.53712290 23	1.0084458D 05
1490	1500	7,41466710 23	9.8542550D 04
1500	1510	7.2947922D 23	9.6305189D 04
1510	1520	7.17743240 23	9.4130350D 04
1520	1530	7.0625239D 23	9.2015972D 04
1530	1540	6.95000470 23	8.99600710 04
1540	1550	6.8398147D 23	8.79607370 04
1550	1560	6.7318954D 23	8.6016132D 04
1560	1570	6.6261901D 23 6.5226437D 23	8.41244880 04
1570	1580 1590		8.22841000 04 8.0493328D 04
1580 1590	1600	6.4212027D 23 6.3218152D 23	7.8750590D 04
1600	1610	6.2244306D 23	7.7054365D 04
1610	1620	6.1289999D 23	7.5403184D 04
1620	1630	6.0354754D 23	7.37956330 04
1630	1640	5.9439108D 23	7.2230348D 04
1640	1650	5.85396110 23	7.0706016D 04
1650	1660	5.76588260 23	6.9221369D 04
1650	1670	5.67953280 23	6.7775184D 04
1670	1680	5.5948702D 23	6.63662820 04
1680	1690	5.5118548D 23	6.4993526D 04
1690	1700	5.43044750 23	6.36558170 04
1700	1710	5.3506102D 23	6.23520970 04
1710	1720	5.2723060D 23	6.10813430 04
1720	1730	5.1954991D 23	5.9842568D 04
1730	1740	5.1201544D 23	5.86348170 04
1740	1750	5.0462380D 23	5.74571720 04
1750	1760	4.97371670 23	5.63087430 04
1760	1770	4.9025584D 23	5.5188671D 04
1770	1780	4.8327318D 23	5.4096126D 04
1780	1790	4.7642064D 23	5.3030306D 04
1790	1800	4.69695260 23	5.19904360 04
1800	1810	4.6309414D 23	5.0975768D 04

R.K.H. Gebel, Blackbody functions. Blackbody (uantum Radiance $Q_{O,\Delta\lambda}$ and Radiance $N_{O,\Delta\lambda}$.

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	_		v	v	v	v		

$\lambda_{ exttt{min}}$	$\lambda_{\mathbf{r} \cdot \mathbf{a} \mathbf{x}}$	$Q_{O,\Delta\lambda}$		$N_{O,\Delta\lambda}$
×10 ⁻⁹ m	×10 ⁻⁹ m	Quanta $s^{-1} m^{-2}$	sr ⁻¹	$W m^{-2} sr^{-1}$
1810	1820	4.5661448D	23	4.9985577D 04
1820	1830	4.50253550	23	4.9019163D 04
1830	1840	4.4400867D	23	4.8075849D 04
1840	1850	4.37877260	23	4.7154980D 04
1850	1860	4.31856790	23	4.62559220 04
1860	1870	4.2594479D	23	4.53780620 04
1870	1880	4.2013888D	23	4.4520808D 04
1880	1890	4.1443672D	23	4.36835850 04
1890	1900	4.0883604D	23	4.2865838D 04
1900	1910	4.03334620	23	4.2067029D 04
1910	1920	3.97930300	23	4.12866330 04
1920	1930	3.92620990	23	4.05241610 04
1930	1940	3.8740462D	23	3.9779108D 04
1940	1950	3.82279200	23	3.9051008D 04
1950	1960	3.77242790	23	3.8339403D 04
1960	1970	3.72293490	23	3.7643848D 04
1970	1980	3.67429450	23	3.69639140 04
1980	1990	3.6264885D	23	3.6299183D 04
1990	2000	3.5794995D	23	3.5649253D 04
2000	2010	3.53331030	23	3.50137310 04

R.K.H. Gebel, Blackbody functions.

Blackbody Quantum Radiance $Q_{O_1\Delta\lambda}$ and Radiance $N_{O_1\Delta\lambda}$.

$_{\times 10^{-9}}^{\lambda_{min}}$ m	$^{\lambda}_{ ext{max}}$ $\times 10^{-9}$ m	$Q_{O,\Delta\lambda}$ Quanta s ⁻¹ m ⁻²	sr ⁻¹	$N_{O,\Delta\lambda}$ W m ⁻² sr ⁻¹
2000	2100	3.33785810	24	3.23737170 05
2100	2200	2.94629980	24	2.72452220 05
2200	2300	2.61322220	24	2.3089913D 05
2300	2400	2.32818740	24	1.9695087D 05
2400	2500	· · · -	24	1.6900174D 05
2500	2600	1.87070100	24	1.4582683D 05
2600	2700	1.6862339D	24	1.2848255D 05
2700	2800		24	1.1023533D 05
2800	2900		24	9.6510015D 04
2900	3000		24	8.4852028D 04
3000	3200		24	1.4126121D 05
3200	3400		24	1.11643540 05
3400	3600		24	8.93892700 04
3600	3800		24	7.2408934D 04
3800	4000		24	5.9272594D 04
4000	+200		24	4.8982504D 04
4200	4400		23	4.0830182D 04
4400	4600		23	3.4304480D 04
4600	4800		23	2.9031234D 04
4800	5000		23	2.4732899D 04
5300	2500		24	4.7677028D 04
5500	6000		23	3.3510806D 04
6000	5500		23	2.4236810D 04
6500	7300		23	1.7960471D 04
7000	7500		23	1.3590604D 04
7500	8000		23	1.04725880 04
3000	8500		23	8.1996757D 03
8500	9000		23	5.51129420 03
9000 9500	9500 10000		23 23	5.23597290 03
10000	11000		_	4.2581516D 03
11000	12000	-	23 23	6.3989905D 03 4.4689110D 03
12000	13000		23	3.2149065D 03
13000	14000		23	2.37160380 03
14000	15000		23	1.78761620 03
15000	16000		23	1.3728548D 03

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$. T = 1870°K

$\lambda_{ exttt{min}}$	$\lambda_{\mathtt{max}}$	$Q_{O,\Delta\lambda}$	$N_{O,\Delta\lambda}$
$\times 10^{-9}$ m	$\times 10^{-9}$ m	Quanta $s^{-1} = 10^{-2} sr^{-1}$	$W m^{-2} sr^{-1}$
300	310	7.8079536D 15	5.07721740-03
310	320	1.5248780D 16	9.60261900-03
320	330	2.8473900D 15	1.7381858D-02
330	340	5.1045092D 16	3.0234393D-02
340	350	8.81719260 16	5.07172750-02
350	360	1.4722176D 17	8.2306669D-02
360	370	2.3829848D 17	1.29506970-01
370	380	3.7487541D 17	1.98438390-01
380	390	5.7446262D 17	2.96213090-01
390	400	8.5928462D 17	4.31889790-01
400	410	1.2569417D 18	6.16197450-01
410	420	1.8010270D 18	8.6170002D-01
420	430	2.53167270 18	1.1828358D CO
430	440	3.4959992D 18	1.59590740 00
440	450	4.7484463D 18	2.11902020 00
450	460	6.35097000 18	2.77197030 00
460	470	8.3730910D 18	3.5760836D CO
470	480	1.0891790D 19	4.5540107D 00
480	490	1.3991248D 19	5.72948450 00
490	500	1.7762436D 19	7.1270456D 00
500	510	2.23025610 19	8.7717452D 00
510	520	2.7714384D 19	1.0688832D 01
520	530	3.4105427D 19	1.29034330 01
530	540	4.1587075D 19	1.54402320 01
540	550	5.0273618D 19	1.8323161D 01
550	560	6.02812220 19	2.15750970 01
560	570	7.1726879D 19	2.52175910 01
570	580	8.4727333D 19	2.92703090 01
580	590	9.9398023D 19	3.3752308D C1
590	600	1.15852040 20	3.86788390 01
600	610	1.34199110 20	4.4064186U 01
610	620	1.54544690 20	4.99200350 01
620	630	1.7698902D 20	5.6255678D 01
630	640	2.01626380 20	6.30779440 01
640	650	2.28544310 20	7.0391171D 01
650	660	2.57822990 20	7.8197200D 01
660	670	2.8953471D 20	8.6495395D 01
670	680	3.23743370 20	9.52826990 01
680	690	3.6050414D 20	1.04553700 02
690	700	3.9986321D 20	1.14300710 02
700	710	4.41857530 20	1.24513900 02
710	720	4,8651479D 20	1.35181410 02
720	730	5.3385333D 20	1.46289470 02
730	74C	5.83882240 20	1.57822550 02
740	750	6.3660145D 20	1.69763520 02
750	760	6.9200193D 20	1.82093800 02
760	770	7.50065910 20	1.94793510 02
770	780	8.1076719D 20	2.07841620 02
780	790	8.74071460 20	2.21216160 02
790	90C	9.39936690 20	2.3489428D 02

R.K.H. Gebel. Blackbody functions. Blackbody Quantum Radiance $Q_{0},_{\Lambda\lambda}$ and Radiance $N_{0},_{\Lambda\lambda}$.

1 = 1870°K

λ _{min}	λ _{max}	$Q_{O,\Delta\lambda}$	$N_{O,\Delta\lambda}$
×10 ⁻⁹ m	×10 ⁻⁹ m	Quanta $s^{-1} m^{-2} sr^{-1}$	$W m^{-2} sr^{-1}$
800	810	1.0083135D 21	2.4885250D 02
810	820	1.0791456D 21	2.63066770 02
820	830	1.15237020 21	2.7751268D 02
830	840	1.22791870 21	2.92165560 02
840	850	1.3057167D 21	3.0700058D 02
850	960	1.38568500 21	3.21992940 02
860	870	1.46773960 21	3.37117900 02
870	098	1.5517926D 21	3.52350960 02
880	890	1.6377525D 21	3.6766787D 02
890 900	900 910	1.7255244D 21 1.8150110D 21	3.8304481D 02 3.9845838D 02
910	920	1.9061126D 21	4.1388575D 02
920	930	1.9987277D 21	4.2930466D 02
930	940	2.0927532D 21	4.4469350D 02
940	950	2.1880852D 21	4.60031360 02
950	960	2.2846192D 21	4.7529808D 02
960	970	2.38225000 21	4.9047426D 02
970	980	2.4808729D 21	5.0554130D 02
980	990	2.5803833D 21	5.20481440 02
990	1000	2.6806771D 21	5.3527773D 02
1000	1010	2.7816514D 21	5.49914110 02
1010	1020	2.8832043D 21	5.6437536D 02
1020	1030	2.98523520 21	5.7864712D 02
1030	1940	3.0876454D 21	5.92715910 02
1040	1050	3.1903376D 21	6.0656908D 02
1050	1060	3.2932168D 21	6.2019485D 02
1060	1070	3.3961900D 21	6.3358227D 02
1070	1080	3.4991665D 21	6.46721240 02
1080	1090	3.6020578D 21	6.5960243D 02
1090	1100	3.7047782D 21	6.7221734D 02
1100	1110	3.8072443D 21 3.9093756D 21	6.8455821D 02 6.9661807D 02
1110 1120	1120 1130	3.9093756D 21 4.9110942D 21	7.0839064D 02
1130	1140	4.11232500 21	7.1987039D 02
1140	1150	4.2129958D 21	7.3105243D 02
1150	1160	4.313037CD 21	7.41932560 02
1160	1170	4.4123822D 21	7.5250720D 02
1170	1180	4.5109677D 21	7.62773380 02
1180	1190	4.6087326D 21	7.72728700 02
1190	1200	4.7056190D 21	7.8237135D 02
1200	1210	4.8015718D 21	7.9170002D 02
1210	1220	4.8965386D 21	8.0071390D 02
1220	1230	4.49047010 21	8.09412690 02
1230	1240	5.08331940 21	8.17796510 02
1240	1250	5.17504260 21	8.2586593D 02
1250	1260	5.2655983D 21	8.33621920 02
1260	1270	5.35494770 21	8.41065820 02
1270	1280	5.4430548D 21	8.48199360 02
1280	1290	5.52988580 21	8.55024569 02
1290	1300	5.6154096D 21	8.6154380D 02
1300	1310	5.69959730 21	8.6775971D 02

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{D,\Delta\lambda}$ and Radiance $N_{D,\Delta\lambda}$. $T = 1870^{\circ}K$

λ_{min}	$\lambda_{ exttt{max}}$	Qo,Δλ	$N_{O,\Delta\lambda}$
$\times 10^{-9}$ m	$\times 10^{-9}$ m	Quanta $s^{-1} m^{-2} sr^{-1}$	$W m^{-2} sr^{-1}$
1310	1320	5.7824226D 21	8.7367521D 02
1320	1330	5.8638611D 21	8.7929349D 02
1330	1340	5.9438909D 21	8.8461793D 02
1340	1350	6.0224922D 21	8.8965216D 02
1350	1360	6.0996470D 21	8.9439999D 02
1360	1370	6.17533950 21	8.9886541D 02
1370	1380	6.24955590 21	9.03052570 02
1380	1390	6.32228410 21	9.06965780 02
1390	1400	6.3935139D 21	9.1060947D 02
1400	1410	6.4632367D 21	9.13988170 02
1410	1420	6.53144560 21	9.1710655D 02
1420	1430	6.59813540 21	9.1996935D 02
1430	1440	6.66330230 21	9.2258139D 02
1440	1450	6.7269440D 21	9.24947560 02
1450	1460	6.7890595D 21	9.27072800 02
1460	1470	6.8496492D 21	9.2896209D 02
1470	1480	6.90871490 21	9.3062047D 02
1480	1490	6.96625940 21	9.3205299D 02
1490	1500	7.0222868D 21	9.3326470D 02
1500	1510	7.0768021D 21	9.34260690 02
1510	1520	7.12981150 21	9.3504605D 02
1520	1530	7.1813221D 21	9.3562583D 02
1530	1540	7.23134210 21	9.3600510D 02
1540	1550	7.27988030 21	9.3618890D 02
1550	1560	7.3269464D 21	9.3618225D 02
1560	1570	7.3725510D 21	9.3599014D 02
1570	1580	7.4167055D 21	9.3561752D 02
1580	1590	7.4594216D 21	9.3506930D 02
1590	1600	7.5007120D 21	9.3435035D 02
1600	1610	7.5405898D 21	9.3346549D 02
1610	1620	7.5790688D 21	9.3241950D 02
1620	1630	7.61616320 21	9.3121709D 02
1630	1640	7.6518877D 21	9.29862710 02
1640	1650	7.6862574D 21	9.28361570 02
1650	1660	7.7192880D 21	9.26717590 02
1660	1670	7.7509953D 21	9.2493546D 02
1670	1680	7.7813957D 21	9.2301957D O.
1680	1690	7.81050550 21	9.20974250 02
1690	1700	7.5383418D 21	9.18803780 02
1700	1710	7.8649216D 21	9.16512340 02
1710	1720	7.8902622D 21	9.1410406D 02
1720	1/30	7.9143810D 21	9.11582980 02
1730	1740	7.9372959D 21	9.03953070 02
1740	1750	7.9590244D 21	9.06218240 02
1750	1760	7.9795847D 21	9.03382320 02
1760	1770	7.9989947D 21	9.0044903D 02
1770	1780	8.01727260 21	8.97422070 02
1780	1790	8.0344354D 21	8.94305020 02
1790	1800	8.0505044D 21	8.91101410 02
1800	1810	8.0654949D 21	8.8781468D 02

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{0\,,\Delta\lambda}$ and Radiance $N_{0\,,\Delta\lambda}$.

T = 1870°K

$\lambda_{ exttt{min}}$	$\lambda_{ exttt{max}}$	$Q_{O,\Delta\lambda}$	$N_{O,\Delta\lambda}$
$\times 10^{-9}$ m	$\times 10^{-9}$ m	Quanta $s^{-1} m^{-2} sr^{-1}$	$\mathrm{W}~\mathrm{m}^{-2}~\mathrm{sr}^{-1}$
1810	1820	8.0794260D 21	8.8444820D 02
1820	1830	8.0923160D 21	8,8100527D 02
1830	1840	8.1041832D 21	8.7748911D 02
1840	1850	8.11504550 21	8.7390286D 02
1850	1860	8.12492130 21	8.7024959D 02
1860	1870	8.1338284D 21	8.6653232D 02
1870	1880	8.1417849D 21	8.6275396D 02
1880	1390	8.1488086D 21	8.5891737D 02
1890	1900	8.1549174D 21	8.5502533D 02
1900	1910	8.1601288D 21	8.5108057D 02
1910	1920	8.1644605D 21	8.4708573D 02
1920	1930	8.1679298D 21	8.4304339D 02
1930	1940	8.1705541D 21	8.3895606D 02
1940	1950	8.1723505D 21	8.3482618D 02
1950	1960	8.1733360D 21	8.3065614D 02
1960	1970	8.17352750 21	8.2644826D 02
1970	1980	8.1729415D 21	8.22204780 02
1980	1990	8.1715948D 21	8.1792790D 02
1990	2000	8.1695035D 21	8.1361975D C2
2000	2010	8.1666839D 21	8.0928240D 02

R.K.H. Gebel, Blackbody functions.

Blackbody Quantum Radiance $Q_{O_1, \Delta\lambda}$ and Radiance $N_{O_1, \Delta\lambda}$.

T = 1870°K

λ_{\min}	$\lambda_{ extbf{max}}$	40,0%		$N_{O,\Delta\lambda}$	
×10 ⁻⁹ m	×10 ⁻⁹ m	Quanta $s^{-1} m^{-2}$	sr ⁻¹	$\rm W~m^{-2}~sr^{-1}$	
2000	2100	8.1427549!)	22	7.89377590	03
2100	2200	8.0513664D	22	1.4422126D	03
2200	2300	7.90949580	22	6.9861629D	03
2300	2400	7.72916540	22	6.53637760	03
2400	2500	7.5204660D	22	6.1002826D	03
2500	2600	7.2917263D	22	5.68276410	03
2600	2700	7.04972360	22	5.2868 05 5D	03
2700	2800	6.79990220	22	4.91399170	03
2800	2900	6.54658100	22	4.5548999D	03
2900	3000	6.29314250	22	4.2393976D	C 3
3000	3200	1.18379280	23	7.5932363D	03
3200	3400	1.08769110	23	6.5536127D	03
3400	3600	9.97434920	22	5.66608310	03
3600	2800	9.13832310	22	4.9103220D	03
3800	4000	8.37096250	22	4.2671347D	03
4000	4200	7.67083910	22	3.7193458D	03
4200	4400	7.03451550	22	3.2520468D	03
4400	4600	6.45752930	22	2.95252760	03
4500	4800	5.93500650	22	2.51006860	03
4800	5000	5.46203360	22	2.21569480	03
5000	5500	1.18690740	23	4.50237340	03
3500	5000	9.76700010	22	3.3816856D	03
6000	6500	8.11235080	22	2.58339100	03
6500	7000	6.79884780	22	2.00428570	03
7000	7500	5.74661770	22	1.5759705D	03
7500	8000	4.89593310	22	1.2566585D	03
8000	8500 2000	4.20203669	22	1.0130573D	03
8500	9000	3.63119720	22	8.2532094D	02
9000	7500	3.15780220	22	6.7886591D	02
9500	10000	2.76224129	22	5.63330240	02
10000	11000	4.57676210	22		02
11000 12000	12000 13000	3.60803240 2.89296470	22	6.2478973 0 4.6071700 0	C2
13000	14000	2.35393950	22	3.4702599D	02
14000	15000	1.94041630	22	2.66277070	02
15000	10000	1.01799670	22		02
1000	10000	1.01133010	4 2	2.07071050	CZ

R.K.H. Gebel, Elackbody functions. Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$. $T=2046^{\circ}K$

$\lambda_{ exttt{min}}$	$\lambda_{\psi\otimes x}$	$Q_{O,\Delta\lambda}$	$N_{O,\Delta\lambda}$
$\times 10^{-9}$ m	×10 ⁻⁹ m	Quanta $s^{-1} m^{-2} sr^{-1}$	$W m^{-2} sr^{-1}$
300	310	6.8133784D 16	4.4313235D-02
310	320	1.24264270 17	7.8266498D-02
320	330	2.17597780 17	1.32853260-01
330	340	3.67205100 17	2.1752975D-01
340	350	5.9915834D 17	3.4468684D-01
350	360	9.48032770 17	5.30077330-01
360	370	1.4584240D 18	7.93181490-01
370	380	2.1864083D 18	1.15748390 00
380	390	3.20087090 18	1.65063950 00
390	400	4.5846324D 18	2.30451200 00
400	410	6.4353086D 18	3.1550770D 00
410	420	8.8658536D 18	4.2421863D 00
420	430	1.20047490 19	5.6092008D 00
430	44C	1.59958150 19	7.3025C20D 00
440	450	2.0997649D 19	9.3708996D 00
450	460	2.7182680D 19	1.18649560 01
460	470	3.4735895D 19	1.4836248D 01
470	480	4.3853234D 19	1.83365940 01
480	490	5.47397350 19	2.2417269D 01
490	500	6.7607456D 19	2.71282200 01
500	510	8.26732320 19	3.25173200 01
510	520	1.0015634D 20	3.86296660 01
520	530	1.2027608D 20	4.55069320 01
530	540	1.4324941D 20	5.3186806D 01
540	550	1.6928860D 20	6.17024950 01
550	560	1.98598950 20 %	7.10823300 01
560 570	570 500	2.31376730 20	8.13494470 01
570 580	580 500	2.67807140 20	9.25215640 01
580 590	590 600	3.0806264D 20 3.5230130D 20	1.0461084D 02 1.1762384D 02
600	610	4.00665519 20	1.31561520 02
610	620	4.53280820 20	1.4641934D 02
620	630	5.10255070 20	1.62187420 02
630	640	5.71677730 20	1.78850760 02
640	650	6.3761940D 20	1.96389480 02
650	660	7.0813162D 20	2.14779120 02
660	670	7.8324678D 20	2.33990980 02
670	680	8.62978270 20	2.53992450 02
680	690	9.4732080D 20	2.74747430 02
690	700	1.03625080 21	2.9621666D 02
700	710	1.12972710 21	3.18358130 02
710	720	1.22769140 21	3.41127470 02
720	730	1.33006940 21	3.64478330 02
730	740	1.43677160 21	3.88362730 02
740	750	1.54769380 21	4.12731470 02
750	760	1.66271880 21	4.37534420 02
760	770	1.78171700 21	4.62720900 02
770	780	1.9045474D 21	4.88239930 02
780	790	2.03105920 21	5.14040600 02
790	300	2.1610920D 21	5.40072250 02

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $\mathsf{Q}_{0,\Delta\lambda}$ and Radiance $\mathrm{i} \mathsf{l}_{0,\Delta\lambda}$.

•	•	T = 2046°K	,n,
$\lambda_{ exttt{min}}$	λ	Q ο,Δλ	$N_{O,\Delta\lambda}$
×10 ⁻⁹ m	λ _{max} ×10 ⁻⁹ m	Quanta $s^{-1} m^{-2} sr^{-1}$	$W m^{-2} sr^{-1}$
800 810	810 820	2.29447790 21	5.6628478D 02
820	830	2.4310417D 21 2.5706024D 21	5.9262884D 02 6.19056050 02
830	840	2.7129740D 21	6.45519160 02
840	850	2.85796650 21	6.71972250 02
850	860	3.00538710 21	6.9837081D 02
860	870	3.15504050 21	7.2467192D 02
870	880	3.3067303D 21 3.4602594D 21	7.5083430D 02
880 890	890 900	3.4602594D 21 3.6154312D 21	7.7681843D 02 8.0258660D 02
900	910	3.7720498D 21	8.2810296D 02
910	920	3.9299207D 21	8.5333356D 02
920	930	4.0888518D 21	8.7824639D 02
930	940	4.2486536D 21	9.0281136D 02
940	950	4.40913960 21	9.2700032D 02
950 960	960 970	4.5701271D 21 4.7314374D 21	9.5078707D 02 9.7414730D 02
970	980	4.6928960D 21	9.9705859D 02
980	990	5.05433320 21	1.0195004D 03
990	1.000	5.2155842D 21	1.0414539D 03
1000	1010	5.3764894D 21	1.0629022D 03
1010	1020	5.5368946D 21	1.0838300D 03
1020 1030	1030 1040	5.6966511D 21 5.8556159D 21	1.10422370 03
1040	1050	6.01365160 21	1.14336260 03
1050	1060	6.1706268D 21	1.16208830 03
1060	1070	6.32641600 21	1.18024110 03
1070	1080	6.48089940 21	1.19781490 03
1080	1090	6.6339634D 21	1.21480480 03
1090 1100	1100 1110	6.7855000D 21 6.9354072D 21	1.2312073D 03 1.2470199D 03
1110	1120	7.0835887D 21	1.26224130 03
1120	1130	7.2299539D 21	1.27687140 03
1130	1140	7.3744178D 21	1.2909108D 03
1140	1150	7.51690110 21	1.30436130 03
1150	1160	7.65732970 21	1.31722550 03
1160 1170	1170 1180	7.79563490 21 7.93175320 21	1.3295067D 03 1.3412090D 03
1180	1190	8.06562600 21	1.35233730 03
1190	1200	8.1971998D 21	1.36289720 03
1200	1210	8.32642570 21	1.37289160 03
1210	1220	8.4532596D 21	1.38233630 03
1220	1230	8.5776616D 21	1.39122940 03
1230 1240	1240 1250	8.6995964D 21 8.8190326D 21	1.3995816D 03 1.4074008D 03
1250	1260	8.9359430D 21	1.4146956D 03
1260	1270	9.0503042D 21	1.42147460 03
1270	1280	9.16209650 21	1.42774690 03
1280	1290	9.2713037D 21	1.43352200 03
1290	1300	9.37791290 21	1.43880920 03
1300	1310	9.4819148D 21	1.4436184D 03

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$.

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$\lambda_{ exttt{min}}$	λ _{max}	$Q_{O,\Delta\lambda}$	$N_{O,\Delta\lambda}$
$\times 10^{-9}$ m	$\times 10^{-9}$ m	Quanta $s^{-1} m^{-2} sr^{-1}$	$^{-1}$ W m $^{-2}$ sr $^{-1}$
1310	132C	9.58330290 21	1.4479596D 03
1320	1330	9.6820737D 21	1.45184270 03
1330	1340	9.7782265D 21	1.45527810 03
1340	1350	9.8717633D 21	1.45827590 03
1350	1360	9.9626887D 21	1.4608465D 03
1360	13/0	1.0051010D 22	1.4630004D 03
1370	1380	1.01367350 22	1.4647479D 03
1380	1390	1.02198770 22	1.46609950 03
1390	1400	1.0300448D 22	1.4670656D 03
1400	1410	1.0378464D 22	1.4676566D 03
1410	1420	1.0453941D 22	1.46788270 03
1420	1430	1.0526899D 22	1.4677545D 03
1430	1440	1.0597358D 22	1.46728190 03
1440	1450	1.06653390 22	1.4664752D 03
1450	1460	1.0730865D 22	1.4653444D 03
1460	1470	1.07939610 22	1.4638995D 03
1470	1480	1.0854653D 22	1.4621502D 03
1480	1490	1.0912966D 22	1.4601063D 03
1490	1500	1.09689290 22	1.45777740 03
1500	1510	1.10225700 22	1.45517280 03
1510	1520	1.1073918D 22	1.45230190 03
1520 1530	1530 1540	1.1123003D 22 1.1169855D 22	1.4491738D 03
1540	1550	1.1214507D 22	1.4457976D C3 1.4421820D C3
1550	1560	1.12569900 22	1.43833580 03
1560	1570	1.12973370 22	1.43426750 03
1570	1580	1.13355790 22	1.42998540 03
1580	1590	1.13717510 22	1.42549780 03
1590	1600	1.1405885D 22	1.42081260 03
1600	1610	1.1438015D 22	1.4159378D 03
1610	1620	1.14681750 2?	1.4108809D 03
1620	1630	1.14963990 22	1.4056496D 03
1630	1640	1.15227220 22	1.40025110 03
1640	1650	1.1547176D 22	1.39469270 03
1650	1660	1.1569797D 22	1.3889814D 03
1660	1670	1.1590619D 22	1.38312390 03
1670	1680	1.16096760 22	1.37712710 03
1680	1690	1.16270C2D 22	1.37099730 03
1690	1700	1.1642632D 22	1.36474090 03
1700	1710	1.1656598D 22	1.35836410 03
1710	1720	1.1668934D 22	1.35187280 03
1720	1730	1.1679675D 22	1.34527310 03
1730	1740	1.1688853D 22	1.3385705D 03
1740	1750	1.16965020 22	1.33177050 03
1750	1760	1.1702655D 22	1.32487870 03
1760	177C	1.17073430 22	1.31790010 03
1770	1780	1.1710600D 22	1.31083990 03
1780	1790	1.1712457D 22	1.30370300 03
1790	18CC	1.17129470 22	1.29649430 03
1800	1810	1.171210CD 22	1.28921820 03

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$.

T = 2046°K

$\lambda_{ exttt{min}}$	λ_{\max}	$Q_{O,\Delta\lambda}$	$N_{O,\Delta\lambda}$
$\times 10^{-9}$ m	$\times 10^{-9}$ m	Quanta $s^{-1} m^{-2} sr^{-1}$	
1910	1820	1.17099470 22	1.28187950 03
1820	1830	1.1706519D 22	1.27448230 03
1830	1840	1.1701847D 22	1.2670310D 03
1840	1850	1.16959600 22	1.25952970 03
1850	1860	1.1688888D 22	1.25198240 03
1860	1870	1.1680660D 22	1.2443928D C3
1870	1880	1.16713050 22	1.23676470 03
1880	1890	1.16608510 22	1.2291018D 03
1890	1900	1.16493260 22	1.2214074D 03
1900	1910	1.16367590 22	1.21368510 03
1910	1920	1.1623175D 22	1.2059379D 03
1920	1930	1.1608602D 22	1.19816920 03
1930	1940	1.1593066D 22	1.19038190 03
1940	1950	1.1576592D 22	1.18257890 03
1950	1960	1.15592080 22	1.17476310 03
1960	1970	1.1540936D 22	1.1669372D C3
1970	1980	1.1521803D 22	1.15910390 03
1980	1990	1.1501833D 22	1.15126560 03
1990	20CC	1.1481048D 22	1.14342490 03
2000	2010	1.1459474D 22	1.13558410 03

R.K.H. Gebel. Blackbody functions. Blackbody Quantum Radiance $Q_{0\,,\Delta\lambda}$ and Radiance $N_{0\,,\Delta\lambda}$.

T = 2046°K

$\lambda_{ exttt{min}}$	λ_{max}	Qo, Δλ	$N_{O,\Delta\lambda}$
×10 ⁻⁹	m ×10 ⁻⁹ m	Quanta $s^{-1} m^{-2} sr$	$W = m^{-2} sr^{-1}$
2000	2100	1.13504510 23	1.1004042D 04
2100	∠200	1.10691960 23	
2200	300 ء	1.07395709 23	
2300	2400	1.03769990 23	8.7759241D 03
2400	2500	9.99377820 22	8.1067984D 03
2500	2600	9.59955490 22	7.4815755D 03
260C	2700	9.20178840 22	6.90088330 03
2700	2800	8.8061539D 22	6.3639674D C3
2800	2900	8.41689110 22	5.8691777D 03
2900	3000	8.03709580 22	5.4143162D 03
000د	3200	1.49829290 23	9.61113790 03
3200	340û	1.36197940 23	8.2066817D 03
3400	3500	1.23735920 23	7.02930200 03
3600	006د	1.12440030 23	6.0419818D 03
3800	4000	1.02255580 23	5.2126746D 03
4000	4200	9.31021750 22	4.5143396D 03
4200	4400	8.48890340 22	3.92449110 03
4400	4600	7.75240310 22	3.4245832D 03
4630	4800	7.09196750 22	2.9993825D 03
4800	000ر	6.4990671D 22	2.63639580 03
5000	5500	1.40330450 23	5.3236127D 03
5500	6300	1.14574580 23	3.9671863D C3
6000	ć500	9.45534890 22	3.0111880D 03
5500	7000	7.88193990 22	2.32364930 03
7000	7500	6.63136390 22	1.81994100 03
7500	3000	5.62816890 22	1.4446324D 03
8000	d500	4.81422847 22	1.16066730 03
5500	9000	4.14797849 22	9.4279053D 02
9000	9500	3.59785350 22	7.7347685D 02
9500	10000	3.13992160 22	6.4036017D 02
10000	11000	5.19733050 22	9.84269820 02
11000	12000	4.07560470 22	7.0577301D 02
12000	13000	3.25866400 22	5.1898287D 02
13000	14000	2.64539150 22	3.9999801D 02
14000	15000	2.17632310 22	2.3865295D 02
15000	10000	1.81158810 22	2.3252055D 02

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{0,\Lambda\lambda}$ and Radiance $N_{0,\Lambda\lambda}$.

 $T = 2870^{\circ} K$

1	1	0	N =
λ_{\min}	λ _{max}	Q ο,Δλ	$N_{O,\Delta\lambda}$
×10 ⁻⁹ m	×10 ⁻⁹ m	Quanta $s^{-1} m^{-2} sr^{-1}$	$W m^{-2} sr^{-1}$
300	310	5.0638469D 19	3.2953774D 01
310	320	7.4935736D 19	4.72225380 01
320	330	1.0783594D 20	6.58706090 01
330	340	1.51298910 20	8.96681430 01
340	350	2.0744565D 20	1.1938886D 02
350	360	2.7851795D 20	1.5578697D 02
360	370	3.6683256D 20	1.9957488D 02
370	380	4.7473199D 20	2.5140269D 02
380	390	6.0453431D 20	3.1184040D 02
390	400	7.58483910 20	3.8136323D 02
400	410	9.38705210 20	4.6034065D 02
410	420	1.14716050 21	5.4902891D 02
420	430	1.38561350 21	6.4756724D 02
430	440	1.6555984D 21	7.55977380 02
440	450	1.9583965D 21	8.7416604D 02
450	460	2.29501830 21	1.00193000 03
460	47C	2.66619300 21	1.1389632D 03
470	480	3.0723638D 21	1.2848657D 03
480	490	3.513688BD 21	1.4391539D 03
490 500	500	3.9900468D 21 4.5010481D 71	1.6012710D 03 1.7705987D 03
510	510 520	5.0460481D 21	1.77059870 03
520	530	5.6241644D 21	2.12817210 03
530	540	6.23429620 21	2.31497420 03
540	550	6.8751448D 21	2.50612050 03
550	560	7.5452360D 21	2.7008484D 03
560	570	8.24294230 21	2.89839550 03
570	580	8.96650570 21	3.0980072D 03
580	590	9.7140598D 21	3.2989437D 03
590	600	1.04836520 22	3.50048590 03
600	610	1.1273262D 22	3.70194080 03
610	620	1.2080826D 22	3.9026454D 03
620	630	1.2904250D 22	4.1019702D 03
630	64C	1.37414310 22	4.29932220 03
640	650	1.459027CD 22	4.4941465D 03
650	660	1.5448687D 22	4.6859279D 03
660	670	1.6314632D 22	4.8741915D 03
670	68C	1.7186101D 22	5.05850320 03
660	690	1.80611400 22	5.2384697D 03
690	700	1.8937858D 22	5.41373730 03
700	710	1.9814429D 22	5.58399210 03
710	720	2.06891050 22	5.74895790 03
720	730	2.15602130 22	5.90839550 03
730	740	2.2426164D 22	6.06210090 03
740	750 760	2.32854540 22	6.2099038D 03
750 760	760 770	2.4136658D 22	6.35166590 03
760 770	770 780	2.4978475D 22	6.48727890 03
770 780	790 790	2.5809635D 22 2.6628996D 22	6.61666280 03
790	790 800		6.7397639D 03 6.8565530D 03
170	800	2.7435492D 22	6.85655300 03

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{0},_{\Delta\lambda}$ and Radiance $N_{0},_{\Delta\lambda}$. $T=2870^{\circ}K$

	•	1 - 2070 K	
$\lambda_{ exttt{min}}$	λ_{max}	$Q_{O,\Delta\lambda}$	$N_{O,\Delta\lambda}$
$\times 10^{-9}$ m	$\times 10^{-9}$ m	Quanta s^{-1} m^{-2} sr^{-1}	$W m^{-2} sr^{-1}$
800	810	2.82281450 22	6.9670238D 03
810	820	2.9006059D 22	7.0711905D 03
820	830	2.9768422D 22	7.1690866D 03
830	840	3.0514501D 22	7.26076300 03
840	850	3.1243638D 22	7.3462861D 03
850	860	3.19552530 22	7.4257367D 03
860	870	3.2648835D 22	7,4992082D 03
870	880	3.33239420 22	7.5668050D 03
880	890	3.3980197D 22	7.6286416D 03
890	900	3.4617283D 22	7.6848411D 03
900	910	3.52349450 22	7.73553400 ú3
910	920	3.5832981D 22	7.78085700 03
920	930	3.6411242D 22	7.8209523D 03
930	940	3.6969626D 22	7.8559662D 03
940	950	3.7508081D 22	7.88604860 03
950	960	3.8026594D 22	7.91135210 03
960	970	3.85251940 22	7.93203110 03
970	980	3.9003946D 22	7.94824110 03
980	990	3.9462950D 22	7.96013840 03
990	1000	3.99023360 22	7.9678792D 03
1000	1010	4.0322266D 22	7.97161930 03
1010	1020	4.072 ?92 70 22	7.97151350 03
1020	1030	4.1104528D 22	7.96771530 03 7.9603765D 03
1030 1040	1040 1050	4.1467304D 22 4.1811508D 22	7.9603765D 03 7.9496468D 03
1050	1060	4.21374100 22	7.93567370 03
1060	1070	4.24452970 22	7.91860219 03
1070	1080	4.27354700 22	7.89857409 03
1080	1090	4.30082430 22	7.8757286D 03
1090	1100	4.3263940D 22	7.8502020D 03
1100	1110	4.35028950 22	7.82212700 03
1110	1120	4.3725449D 22	7.79163300 03
1120	1130	4.3931952D 22	7.75884610 03
1130	1140	4.41227560 22	7.7238888D 03
1140	1150	4.4298221D 22	7.68688020 03
1150	1160	4.44587070 22	7.64793580 03
1160	1170	4.4604578D 22	7.6071673D 03
1170	1180	4.4736200D 22	7.5646832D C3
1180	1190	4.48539380 22	7.52058810 03
1190	1200	4.4958157D 22	7.47498340 03
1200	1210	4.50492230 22	7.4279665D 03
1210	1220	4.51274970 22	7.37963190 03
1220	1230	4.51933410 22	7.3300703D 03
1230	1240	4.52471130 22	7.2793690D 03
1240	1250	4.52891670 22	7.22761220 03
1250	1260	4.5319856D 22	7.1748808D 03
1260	1270	4.5339525D 22	7.12125220 03
1270	1280	4.53485180 22	7.06680120 03
1280	1290	4.53471740 22	7.01159920 03
1290	1300	4.53358240 22	6.95571470 03
1300	1310	4.5314797D 22	6.89921330 03

R.K.H. Gebel. Blackbody functions. Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$.

T = 2870°K

$\lambda_{ exttt{min}}$	λ _{max}	$Q_{O,\Delta\lambda}$	$N_{O,\Delta\lambda}$
×10 ⁻⁹ m	$\times 10^{-9}$ m	Quanta $s^{-1} m^{-2} sr$	-1 W m ⁻² sr ⁻¹
1310	1320	4.52844160 22	6.8421577D 03
1320	1330	4.5244997D 22	6.78460820 03
1330	1340	4.5196852D 22	6.72662200 03
1340	1350	4.5140285D 22	6.6682540D 03
1350	1360	4.5075596D 22	
1360	1370	.5003078D 22	
1370	1380	6.4923017D 23	
1380	1390	4.4835695D 22	
1390	1400	4.4741384D 22	
1400	1410	4.4640355D 22	
1410	1420	4.45328670 22	
1420	1430	4.4419177D 22	
1430	1440	4.4299534D 22	
1440	1450	4.41741820 23	
1450	1460	4.4043355D 22	
1460	1470	4.39072860 22	
1470	1480	4.37661990 22	
1480 1490	1490 1500	4.3620313D 23 4.3469840D 23	5.8362320D 03 5.7771956D 03
1500	1510	4.3314987D 22	
1510	1520	4.3155955D 22	
1520	1530	4.2992939D 22	
1530	1540	4.2826129D 22	
1540	1550	4.2655710D 22	
1550	1560	4.2481860D 22	
1560	1570	4.23047520 22	
1570	1580	4.21245550 22	
1580	1590	4.19414330 22	
1590	1600	4.1755542D 22	
1600	1610	4.15670370 22	
1610	1620	4.1376066D 22	5.09034080 03
1620	1630	4.1182773D 22	5.03538170 03
1630	1640	4.09872970 22	4.98C8297D 03
1640	1650	4.07897720 22	4.92669350 03
1650	1660	4.0590330D 22	4.8729813D 03
1660	1670	4.0389096D 22	
1670	1680	4.0186192D 22	
1680	1690	3.9981736D 22	
1690	1700	3.97758420 22	
1700	1710	3.956862CD 22	
1710	1720	3.9360176D 22	
i 720	1730	3.9150613D 22	
1730	1740	3.8940030D 22	4.45930210 03
1740	1750	3.87285230 22	4.40966490 03
1750	1760	3.85161840 22	4.36049910 03
1760	1770	3.8303101D 22	
1770	1780	3.8089361D 22	4.26358950 03
1780	1790	3.7875046D 22	
1790	1800	3.7660236D 22 3.7445008D 22	4.1685846D C3
1800	1810	3.7445008D 22	4.1217984D 03

R.K.H. Gebel. Blackbody functions. Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$.

Т	=	2	87	'n	0	K
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$\lambda_{ t min}$	λ_{max}	Qo,Δλ	N _{O,Δλ}
×10 ⁻⁹ m	$\times 10^{-9}$ m	Quanta $s^{-1} m^{-2} sr^{-1}$	$W m^{-2} sr^{-1}$
1810	1820	3.7229436D 22	4.0754900D 03
1820	1830	3.7013590D 22	4.0296594D 03
1830	1840	3.67975390 22	3.98430610 03
1840	1850	3.6581349D 22	3.9394294D 03
1850	1860	3.6365083D 22	3.8950285D 03
1860	1870	3.6148803D 22	3.8511022D 03
1870	1880	3.5932567D 22	3.8076491D 03
1880	1890	3.5716430D 22	3.7646675D 03
1890	1900	3.5500447D 22	3.7221557D 03
1900	1910	3.5284670D 22	3.6801117D 03
1910	1920	3.5069149D 22	3.6385333D 03
1920	1930	3.4853930D 22	3.5974181D 03
1930	1940	3.4639061D 22	3.5567638D 03
1940	1950	3.4424584D 22	3.5165675D 03
1950	1 96 0	3.4210542D 22	3.47682670 03
1960	1970	3.3996974D 22	3.4375384D 03
1970	1980	3.3793920D 22	3.3986996D 03
1980	1990	3.3571416D 22	3.3603072 ¹ 03
1990	2000	3.3359498D 22	3.32235790 03
2000	2010	3.3148198D 2?	3.2848485D 03

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$.

 $T = 2870^{\circ} K$

λ_{\min}	λ _{max}	$Q_{O,\Delta\lambda}$		$N_{O,\Delta\lambda}$	
×10 ⁻⁹ m	×10 ⁻⁹ m	Quanta s ⁻¹ m ⁻²	sr ⁻¹	$\rm W~m^{-2}~sr^{-1}$	
2000	2100	3.22090350	23	3.12314110	04
2100	2200	3.01749090	23	2.78974510	04
2200	2300	2.82370350	23	2.4944986D	04
2300	2400	2.6406366D	23	2.23345710	04
2400	2500	2.46875420	23	2.0028080D	04
2500	2600	2.30809090	23	1.79900150	04
2600	2700	2.15839710	23	1.6188109D	04
2700	2800	2.01924240	23	1.4593477D	04
2800	2900	1.89008820	23	1.3180536D	04
2500	3000	1.77033830	23	1.19267870	04
3000	3200	3.21595360	23	2.06331340	04
3200	3400	2.8344666D	23	1.7081711D	04
5400	3600	2.50681110	23	1.42426210	04
3600	3800	2.22485540	23	1.19564850	04
5800	4000	1.98158460	23	1.0102354D	04
4303	4200	1.77104370	23	9.58805010	03
4200	4400	1.58822250	23	7.3429328D	03
4400	4600	1.42892420	23	6.3125235D	03
4600	4800	1.28963900	23	5.4545529D	03
4800	>000	1.1674315D	23	4.7359628D	03
5000	5500	2.47486930	23	9.39059690	03
5500	6000	1.97516770	23	6.9401028D	03
6300	0500	1.5998033D	23	5.09537370	03
6500	7000	1.31288930	23	3.9708283D	03
7000	7500	1.09010300	23	2.99172550	03
7500	9000	9.14652790	22	2.34785420	03
8300	8500	7.74687850	22	1.86778970	03
8500	9000	6.6173156D	22	1.5041020D	C 3
9000	9500	5.69606870	22	1.22459670	03
9500	10000	4.93747730	22	1.0069838D	03
10000	11000	8.08696280	22	1.53459320	03
11000	12000	6.29087280	22	1.08946210	03
12000	13000	4.98858750	22	7.9453448D	02
13000	14000	4.02173640	22	5.9292956D	02
14000	15000	3.28908360	22	4.51369280	02
15000	16000	2.72399690	22	3.4962607D	02

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{O,\Delta\lambda}$ and Radiance $N_{O,\Delta\lambda}$.

T = 6200°K°

$\lambda_{ exttt{min}}$	λ_{max}	Qo, AA	No, Ax
×10 ⁻⁹ m	$\times 10^{-9}$ m	Quanta $s^{-1} m^{-2} sr^{-1}$	$W m^{-2} sr^{-1}$
300	310	3.4379022D 23	2.23902960 05
310	320	3.84756990 23	2.4263711D 05
320	330	4.2598331D 23	2.6037750D 05
330	340	4.6707145D 23	2.76977130 05
340	350	5.0766006D 23	2.92326990 05
350	360	5.47427650 23	3.06352700 05
360	370	5.8609428D 23	3.1901065D 05
370	380	6.2342153D 23	3.30283870 05
380	390	6.5921134D 23	3.4017802D 05
390	400	6.9330393D 23	3.48717420 05
400	410	7.2557516D 23	3.5594149D 05
410	420	7.55933430 23	3.6190146D 05
420	430	7.84316510 23	3.6665743D 05
430	440	8.1068818D 23	3.70275900 05
440	450	8.3503504D 23	3.7282755D 05
450	460	9.5736338D 23	3.74385470 05
460	470	8.7769623D 23	3.7502362D 05
470	480	8.9607071D 23	3.74£1560D 05
480	490	9.12535510 23	3.73833730 05
490	500	9.27148710 23	3.7214819D 05
500	510	9.39975720 23	3.6982655D 05
510 520	520	9.5108761D 23	3.66933280 05
530	530 540	9.6055951D 23 9.6846931D 23	3.6352948D 05
540	550	9.6846931D 23 9.7489654D 23	3.5967271D 05 3.5541690D 05
550	560	9.7992135D 23	3.5541690D 05 3.5081233D 05
560	570	9.83623730 23	3.45905640 05
570	580	9.8608284D 23	3.40739960 05
580	590	9.8737643D 23	3.3535498D 05
590	600	9.8758041D 23	3.29787110 05
600	610	9.8676849D 23	3.2406963D 05
610	620	9.8501192D 23	3.1823285D 05
620	630	9.8237926D 23	3.1230432D 05
639	640	9.78936260 23	3.0630892D 05
640	650	9.74745760 23	3.00269150 05
650	660	9.69867630 23	2.94205190 05
660	670	9.64358780 23	2.8813513D 05
670	680	9.58273130 23	2.82075130 05
680	690	9.51661690 23	2.76039540 05
690	700	9.4457260D 23	2.7004107D 05
700	710	9.37051190 23	2.6409092D 05
710	720	9.2914010D 23	2.5819891D C5
720	730	9.2087933D 23	2.5237360D 05
730	740	9.1230637D 23	2.46622410 05
140	750	9.03456300 23	2.4095169D 05
750	760	8.9436186D 23	2.35366890 05
760	770	8.8505363D 23	2.29872550 05
770	780	8.7556007D 23	2.24472500 05
780	790	8.6590765D 23	2.19169810 05
790	800	8.56120990 23	2.1396697D 05

R.K.H. Gebel, Blackbody functions.

Blackbody Quantum Radiance $Q_{O_1,\Lambda\lambda}$ and Radiance $N_{O_1,\Lambda\lambda}$.

T = 6200°K

$\lambda_{ exttt{min}}$	λ_{\max} $Q_{0,\Delta\lambda}$		$N_{O,\Delta\lambda}$						
×10 ⁻⁹	×10 ⁻⁹ m ×10 ⁻⁹ m		m	Quanta s ⁻¹	m ⁻²	sr ⁻¹	H	m ⁻² sr	-1
800		810		8.46222	880	23	2.08	8855891	05
810		820		8.36234		23		3867971	
820		830		8.26175	350	23	1.98	5974180	05
830		840		8.16063	540	23	1.94	418507	05
840		850		3.05915	74 D	23	1.89	950085) 05
850		860		7.95747		23		492140	
860		870		7.85572		23		0446341	
870		880		7.75403		23		5075031	
880		890		7.65253		23		1806621	
890		900		7.551325		23		7640081	
900		910		7.45050		23		3574220	
910 920		920 930		7.35017		23		9607691 5 73 9061	
930		940		7.15126		23		96675	
940		950		7.05284		23		3289140	
950		960		6.95518		23		704.2	
960		970		6.858345		23		211130	
970		980		6.762380		23		7807160	
980		990		6.667339		23		49076	
990		000		6.573239		23		260080	
1000		010		6.48012		23		3113240	
1010		020		6.388039		23		5048330	
1020	1	030		6.29699	50D	23	1.22	063480	05
1030	1	040		6.20701	780	23	1.19	156800	05
1040	1	050		6.11912	70D	23	1.16	326390	05
1050	1	060		6.030338	85D	23	1.13	3570410	05
1060		070		5.943665		23		887000	
1C70		080		5.858119		23		127433	
1080		090		5.77370		23		730600	
1090		100		5.690439		23		254020	
1100		110		5.608308		23		842850	
1110		120		5.527328		23		95361	
1120 1130		130 140		5.447499		23		098670	
1140		150		5.291263		23)847070 182570	
1150		160		5.214859				089240	
1160		170		5.139589		23		551530	
1170		180		5.065446		23		554200	
1180		190		4.992427		23		082390	
1190		200		4.920520		23		121580	
1200	_	210		4.849718		23		657600	
1210		220		4.780011		23		676640	
1220		230		4.711388	160	23	7.64	165240	04
1230	13	240		4.643840	050	23	7.47	110260	94
1240	1.	250		4.577355	66D	23	7.30	498920	04
1250	1 .	260		4.511922	210	23	7.14	318790	04
1260	1.2	270		4.447528		23		557750	
1270		280		4.384161		23		204010	
1280		290		4.321809		23		246110	
1290		30C		4.260458		23		672910	
1300	1	310		4.20C096	60	23	5.39	473570	04

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{O\,,\Delta\lambda}$ and Radiance $N_{O\,,\Delta\lambda}$.

			<u>-</u>
		T = 6200°K	
$\lambda_{ exttt{min}}$	$\lambda_{ exttt{max}}$	$Q_{O,\Delta\lambda}$	$N_{O,\Delta\lambda}$
9	30-9	Quanta $s^{-1} m^{-2} sr^{-1}$	$W m^{-2} sr^{-1}$
1310	1 320	4.1407098D 23	6.25637550 04
1320	1330	4.0822849D 23	6.1215461D 04
1330	1340	4.0248083D 23	5.9901482D 04 5.8620850D 04
1340 1350	1350 1360	3.9682666D 23 3.9126459D 23	5.8620850D 04 5.7372628D 04
1360	1370	3.8579327D 23	5.6155904D 04
1370	1380	3.8041132D 23	5.4969792D 04
1380	1390	3.75117370 23	5.38134340 04
1390	1400	3.6991007D 23	5.26859950 04
1400	1410	3.6478805D 23	5.1586665D 04
1410	1420	3.5974995D 23	5.0514659D C4
1420	1430	3.5479444D 23	4.9469212D 04
1430	1440	3.4992016D 23	4.8449586D 04
1440	1450	3.4512580D 23	4.7455060D 04
1450	146C	3.4041004D 23	4.6484937D 04
1460	1470	3.35771560 23	4.55385410 04
1470	148C	3.3120908D 23	4.4615215D 04
1480	149C	3.26721320 23	4.37143210 04
1490	1500	3.22307010 23	4.2835242D 04
1500	1510	3.1796489D 23	4.1977376D 04
1510	1520	3.1369374D 23	4.11401410 04
1520 1530	1530 1540	3.0949232D 23	4.03229730 04
1540	1550	3.0555944D 23 3.0129390D 23	3.9525323D 04 3.8746659D 04
1550	1560	2.97294530 23	3.7986465D 04
1560	1570	2.9336017D 23	3.7244240D 04
1570	1580	2.8948968D 23	3.6519497D 04
1580	1.590	2.85681940 23	3.5811765D 04
1590	1600	2.8193583D 23	3.5120587D 04
1600	1610	2.7825028D 23	3.4445516D 04
1610	1620	2.74624210 23	3.37861240 04
1620	1630	2.7105655D 23	3.3141990D 04
1630	1640	2.6754628D 23	3.2512708D 04
1640	1650	2.6409237D 23	3.1897885D 04
1650	1660	2.60693810 23	3.12971380 04
1660	1670	2.5734961D 23	3.0710094D 04
1670	1680	2.54058820 23	3.0136394D 04
1680	1690	2.5082046D 23	2.9575686D 04
1690	1700	2.4763360D 23	2.90276320 04
1700	1710	2.4449731D 23	2.8491900D 04
1710 1720	1720	2.4141070D 23	2.79681700 04
1730	1730 1740	2.38372870 23 2.3538295D 23	2.7456132D U4
1740	1750	2.3244007D 23	2.6955482D 04 2.6465928D 04
1750	1760	2.2954340D 23	2.59871830 04
1760	1770	2.26692110 23	2.55189710 04
1770	1780	2.2388537D 23	2.5061024D 04
1780	1790	2.21122410 23	2.4613079D 04
1790	1800	2.18402430 23	2.4174883D 04
1900	1810	2.1572465D 23	2.37461890 04
		- -	

R.K.H. Gebel, Blackbody functions. Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$. $T = 6200^{\circ}K$

$\lambda_{ exttt{min}}$	λ_{max}	$Q_{O,\Delta\lambda}$	$N_{O,\Delta\lambda}$
×10 ⁻⁹ m	×10 ⁻⁹ m	Quanta s^{-1} m^{-2} sr^{-1}	$W m^{-2} sr^{-1}$
1810	1820	2.1308834D 23	2.3326757D 04
1820	1830	2.10492750 23	2.2916355D 04
1830	1840	2.0793715D 23	2.2514756D 04
1840	1850	2.0542082D 23	2.2121740D 04
1850	1860	2.0294307D 23	2.1737094D 04
1860	1870	2.00503220 23	2.1360610D 04
1870	1880	1.9810058D 23	2.0992085D 04
1880	1890	1.9573450D 23	2.06313240 04
1890	1900	1.93404320 23	2.0278135D 04
1900	1910	1.9110942D 23	1.9932333D 04
1910	1920	1.88849170 23	1.9593738D 04
1920	1930	1.8662296D 23	1.92621730 04
1930	1940	1.84430170 23	1.8937469D C4
1940	1950	1.8227024D 23	1.8619459D 04
1950	1960	1.8014258D 23	1.83079820 04
1960	1970	1.7904661D 23	1.8002881D 04
1970	1980	1.7598180D 23	1.7704003D 04
1980	1990	1.7394758D 23	1.74111990 04
1990	2000	1.7194344D 23	1.7124325D 04
2000	2010	1.6996883D 23	1.6843241D 04

R.K.H. Gebel, Blackbody functions.

Blackbody Quantum Radiance $Q_{O\,,\Delta\lambda}$ and Radiance $N_{O\,,\Delta\lambda}$.

T = 6200°K

λ _{min}	λ _{max}	Qo, Δλ	$N_{O,\Delta\lambda}$
$\times 10^{-9}$ m	$\times 10^{-9}$ m	Quanta $s^{-1} m^{-2} sr^{-1}$	$W m^{-2} sr^{-1}$
2000	2100	1.61545950 24	1.5667384D 05
2100	2200	1.44451730 24	1.33572040 05
2200	2300	1.29625380 24	1.14529720 05
2300	2400	1.16714740 24	9.8730235D 04
2400	2500	1.05428539 24	8.5539842D 04
2500	2600	9.5525557D 23	7.4463028D 04
2600	2700	8.68045490 23	6.5109553D 04
2700	2800	7.9097763D 23	5.7169936D 04
2800	2900	7.22644960 23	5.0397099D 04
2900	3000	6.6186353D 23	4.4592526D 04
3000	3200	1.1667396D 24	7.4871991D 04
3200	3400	9.9194284D 23	5.9788844D 04
400د	3600	8.5012062D 23	4.8306948D 04
3600	3800	7.33913170 23	3.9445474D 04
3800	4000	6.3783001D 23	3.2520542D 04
4000	4200	5.57723910 23	2.70471210 04
4200	4400	4.9042566D 23	2.2675804D 04
4400	4600	4.33497110 23	1.9151263D 04
4600	4800	3.84997970 23	1.6284447D 04
4800	5000	3.43453600 23	1.3933671D C4
5000	5500	7.1229569D 23	2.70336610 04
5500	5000	5.5311218D 23	1.9157969D 04
6000	0500	4.37964190 23	1.3951074D 04
6500	7300	3.5264180D 23	1.0398156D 04
7000	7500	2.88093100 23	7.9071939D 03
7500	8000	2.3836860D 23	6.11919330 03
8000	8500	1.99449640 23	4.8090510D C3
8500	9000	1.68555940 23	3.8314241D 03
9000	9500	1.4372263D 23	3.0900139D C3
9500	10000	1.23534580 23	2.51953670 03
10000	11000	2.0015825D 23	3.79883170 03
11000	12000	1.53779110 23	2.66338550 03
12000	13000	1.2063467D 23	1.92227110 03
13000	14000	9.64440990 22	1.42195800 03
14000	15000	7.82840189 22	1.07435430 03
15000	16000	6.44114610 22	8.2678086D 02

R.K.H. Gebel, Blackbody functions.

Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$ Spectral interval 8.5 μm to 11.0 μm

T	Qo,Δλ		Log ₁₀ Qo,Δλ		Νο,Δλ		Logio No, Δλ	
°K	Quanta $s^{-1}m^{-2}s$	r ⁻¹			$\mathrm{W}~\mathrm{m}^{-2}\mathrm{sr}^{-1}$			
50	8.9834258E	10	1.0907595E	01	1.5198065E-	-09	-8.8182117E 00)
100		16	1.6907222E	01	1.5720068E-	-03	-2.8035456E 00)
15C	9.2918901E	18	1.8968104E	31	1.8464945E-	-01	-7.3365198E-01	l
200		20	2.0016334E	01	2.0387568E	00	3.1988787E-01	L
25C		2 C	2.0652466E	JI	9.1072010E	3)	9.5938492E-01	
300		21	2.1080746E	01	2.4543598E	01	1.3899383E 00	
350		21	2.1399870E	91	5.0196941E	21	1.7006773E 00	
40C		21	2.1624509E	01	8.6399202E	31	1.9365098E 00	
450		21	2.18U9548E	71	1.3257345E	02	2.1224566E 00	
500		21	2.19599C5E	01	1.8772594E	32	2.2735243E 00	
605		22	2.2191285E	01	3.2057834E	02	2.5059342E 00	
700		22	2.2363114E	01	4.7694338E	02	2.6784669E 00	
300		2.2	2.2497478E	01	6.5063366E	02	2.3133366E 00	
930		22	2.2606589E	01	8.3719707E	02	2.9228277E 00	
1000		22	2.2697767E	91 01	1.0334741E	03	3.0142996E 00	
1500		23	2.3C04807E 2.3192095E	01	2.0997444E	03	3.3221664E 00	
2300 2503		23	2.3325379E	01	3.2347047E 4.3988032E	03 03	3.5098347E 00 3.6433346E 00	
3000		23 23	2.3428370E	01	5.5778329E	03	3.6433346E 00 3.7464655E 00	
3500		23	2.3512108E	01	6.7655038E	03	3.8303002E 00	
4000		25	2.35825 73 E	01	7.9586158E	03	3.9008376E 00	
450J		23	2.3643357E	01	9.1553723E	33	3.9616761E 00	
5000		23	2.3696774E	01	1.0354686E	04	4.0151371E 00	
6000		23	2.3767371E	01	1.2758454E	04	4.1057981E 00	
7000		23	2.3862417E	01	1.5166629E	04	4.1808891E 00	
8000		23	2.3926453E	01	1.7577565E	04	4.2449588E 00	
9000		23	2.3982288E	01	1.9990344F	04	4.3008203E 00)
10000		24	2.4031781E	01	2.2404415E	04	4.3503336E CO)
290	1.01528935	21	2.1006590E	01	2.0672364E	01	1.3153901E 00	2
295	1.10733078	21	2.1044277E	01	2.2556777E	01	1.3532771E 00	
299	1.184532CE	21	2.1073547E	01	2.413799UE	01	1.3827011E 00)
300	1.20433116	21	2.1080746E	01	2.4543598E	01	1.3899383E 00	0
301	1.2243305E	21	2.1087899E	01	2.4953343E	01	1.3971287E 00)
305	1.3063373E	21	2.1116055E	01	2.6633843E	01	1.4254338E 00)
310		21	2.1150261E	01	2.8828373E	01	1.4598201E 00)
2040	1.6006500E	23	2.3204296E	01	3.3270330E	03	3.5229571E 00)
2870	2.5337821E	23	2.3403769E	01	5.2702748E	03	3.7218333E 00)
5600		23	2.3753341E	01	1.1796287E	04	4.0717454E 00)
6100	6.2442663E	23	2.37954816	01	1.29991J8E	04	4.1139136E 00)

Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$ Spectral interval $3.35\mu m$ to $4.60\mu m$

T	Qo, AA	Log ₁₀ Qc,Δλ	Νο,Δλ	Login No, Ax
°K	Quanta $s^{-1}m^{-2}sr^{-1}$		$W m^{-2} sr^{-1}$	
50	0.		0.	
100	5.4699001E 09	9.7379794F 00	2.4429245E-10	-9.6120901E 00
150	2.8545935E 14	1.4455544E 01	1.29740U0E-05	-4.8869262E 00
200	7.1826563E 16	1.6856285E 01	3.3197829E-03	-2.4788903E 00
250	2.0904274E 18	1.8320235E 01	9.8073232E-02	-1.0084495E 00
300	2.0415001E 19	1.9309949E 01	9.6999071E-01	-1.3232426E-02
350	1.0597783E 2G	2.0025215E 01	5.0886340E 00	
400	3.6890079E 2C	2.0566910E 01	1.7867749E 01	1.2520699E 00
45.)	9.81J2349E 2U	2.0991679E 01	4.7859531E 01	1.6799684E 00
500	2.1571335E 21	2.1333877E 01	1.0587125E 02	2.0247781E 00
600	7.106538CE 21	2.1851658E 01	3.5206619E 02	
700	1.6806241E 22	2.2225471E 01	8.3832422E 02	2.9234121E 00
800	3.226353CE 22	2.2508712E 01	1.6176934E 03	3.2088962E 00
900 1000	5.3871354E 22 8.1566749E 22	2.2731358E 01 2.2911513E 01	2.7119188E 03 4.1191036E 03	3.4332767E 00 3.6148027E 00
1500	2.9637541E 23	2.2911513E 01 2.3471842E 01	4.1191036E 03 1.5102841E 04	4.1790587E 00
2000	5.9642904E 23	2.3775559E 01	3.0518814E 04	4.4845676E 00
2500	9.4314875E 23	2.3974589E 01	4.8372278E 04	4.6845965E 00
3000	1.3167800E 24	2.4119513E 01	6.7631466E 04	4.8301489E 00
3500	1.7069404E 24	2.4232218E 01	8.7757305E 04	4.9432833E 00
4000	2.10791535 24	2.4323853E 01	1.0844984E 05	5.0352289E 00
4500	2.5163094E 24	2,4400764E 01	1.2953132F 05	5.1123748E 00
5000	2.9299995E 24	2.4466867E 01	1.5089051E 05	5.1786619E 00
6000	3.7681501E 24	2.4576128E 01	1.9417380E 05	5.2881907E 00
7000	4.6156619E 24	2.4664234E 01	2.3794821E 05	5.3764825E 00
8 000	5.4690918E 24	2.4737915E 01	2.8203313E 05	5.4503002E 00
9000	6.3254961E 24	2.4801163E 01	3.2632662E 05	5.5136525E 00
10000	7.1866964E 24	2.4856529E 01	3.7076683E 05	5.5691009E 00
290	1.3752895E 19	1.9138394E 01	6.5191389F-01	-1.85809778-01
295	1.6810285E 19	1.9225575E 01		-9.8113015E-02
299	1.9646829E 19	1.9293292E 01		-2.9989855E-02
300	2.0415001E 19	1.9309949E 01		-1.3232426E-02
301	2.1207989E 19	1.9326500E 01	1.00790085 00	3.4177725E-03
3:05	2.4640633E 19	1.9391652E 01	1.1721060E GC	
310	2.9567093E 19	1.9470809E 01	1.4080278E 00	
2040	6.2280173E 23	2.3794350E 01	3.1875670E 04	
2870	1.2177384E 24	2.4085554E 01	6.2524466E 04	
5600	3.4314939E 24	2.4535483E 01	1.7678726E 05	5.2474510E 00
6170	3.8525539E 24	2.4585749E 01	1.9853302E 05	5.2978323E 00

Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$ Spectral interval 3.4µm to 4.0µm

```
Logio No, Δλ
                                                                N_{O}, \Delta \lambda
                                    Log<sub>10</sub> Qo,Δλ
    Ţ
                 Qo, Da
    ^{\circ}K Quanta s^{-1}m^{-2}sr^{-1}
                                                             W m^{-2} sr^{-1}
    50
          6.5628437E 07 7.8170921E 00
   100
                                                         3.3545327E-12 -1.1474368E 01
                                  1.3204762E 01 8.2903334E-07 -6.0814281E 00
1.5928538E 01 4.4290399E-04 -3.3536904E 00
1.7575895E 01 1.9793877E-02 -1.7034691E 00
1.8680481E 01 2.5305891E-01 -5.9677837E-01
1.9472852E 01 1.5746452E 00 1.9718272E-01
2.0069087E 01 6.2323396E 00 7.9465111E-01
          1.6023658E 13
8.4827824E 15
3.7661297E 17
4.7916031E 18
2.9706548E 19
   150
   260
   250
   30.)
   350
           1.172431CE 20
   4C0
                                  2.0534050E 01 1.8221695E 01 1.2605935E 00 2.0906851E 01 4.3071434E 01 1.6341894E 00
   450
           3.4201867E 20
   500
           8.0695813E 2C
                                   2.1467681E 01
                                                         1.5711727E J2 2.1962240E 00
           2.9354949E 21
   633
                                                         3.9748527E 02 2.5993211E 00
8.0002000E 02 2.9031008E 00
1.3829052E 03 3.1407925E C0
2.1495667E J3 3.3323509E 00
8.3776156E 03 3.9231205E 00
1.7366217E 04 4.2397053E 00
                                  2.1869915E 01
  700
          7.4116547E 21
          1.4895354E 22
2.5718568E 22
3.9940589E 22
1.5526205E 23
3.2146877E 23
                                  2.2173051E 01
2.2410247E 01
2.2601414E 01
2.3191065E 01
   803
   900
 1000
 1500
                                  2.3507139E 01
 2000
                                                         2.7902402E 04 4.4456425E 00
 2500
           5.16167915 23
                                  2.3712791E 01
                                                         3.9338941E 04 4.5948226E 00
5.1332943E 04 4.7103962E 00
          7.2743068E 23
 3063
                                  2.3861791E 01
          9.4894814E 23
                                  2.3977242E 01
 3500
           1.1771877E 24
                                  2.4C70846E 01
                                                         6.3692482E 04 4.8040882E 00
 4000
 4500
          1.4100481E 24
                                  2.4149234E 01
                                                         7.6303329E 04 4.8825435E CC
          1.6462114E 24
2.125263CE 24
2.6101654E 24
                                  2.4216486E 01
                                                          8.90938215 04 4.94984765 00
 5000
                                  2.4327413E 01
2.4416668E 01
2.4491189E 01
2.4555078E 01
                                                         1.1504060E 05
1.4130565E 05
1.6777208E 05
 6000
                                                                                  5.0608512E 00
                                                                                  5.1501596E 00
 7303
          3.0987695E 24
 8000
                                                                                  5.2247197E 00
                                                                                  5.2886378E 00
                                                         1.9437381E 05
          3.5898608E 24
 9000
                                 2.4610948E 01
10000
          4.08270225 24
                                                         2.2107075E 05 5.3445313E 00
                                                         1.6293597E-C1 -7.8798304E-01
   290
          3.0878030E 18
                                 1.8489649E 01
                                                         2.0380678E-01 -6.9078137E-01
                                  1.8586662E 01
1.8661965E 01
1.8680481E 01
1.8698875E 01
   295
          3.8696630E 18
                                                         2.4247631E-01 -6.1533068E-01
          4.5916092E 18
4.7916031E 18
4.9989095E 18
   299
                                                          2.5305891E-01 -5.9677837E-01
   300
                                                         2.6402939E-01 -5.7834773E-01
  301
                                  1.8771262E 01
1.8859150E 01
2.3526606E 01
           5.9055690E 18
                                                         3.1201935E-J1 -5.0581847E-01
  305
          7.2301953E 18
                                                         3.8215883E-01 -4.1775610E-01
  310
          3.3620615E 23
 2040
                                                         1.8163554E 04 4.2592008E 00
          6.7132505E 23 2.3826933E 01
1.9327703E 24 2.4286180E 01
                                                         3.6301455E 04 4.5599240E 00
1.0461445E 35 5.7195917E 00
 2870
 5600
 6100
          2.1735362E 24 2.4337167E 01
                                                         1.1765530E 05 5.0706115E 00
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R.K.H. Gebel, Blackbody functions.

Blackbody Quantum Radiance ${\rm Q}_{\rm O,\Delta\lambda}$ and Radiance ${\rm N}_{\rm O,\Delta\lambda}$ Spectral interval $-1.95\mu m$ to $2.5\mu m$

T	Qo, $\Delta\lambda$		Log ₁₀ Qo,Δλ		$N_{O,\Delta\lambda}$	$Log_{1c} N_{O,\Delta\lambda}$	
°K	Quanta $s^{-1}m^{-2}s$	r ⁻¹			$W m^{-2} sr^{-1}$		
50	0.				0.		
100	n.				0.		
150	2.27677965	J7	7.3573210E	00	1.8683240E-1	2 -1.1728548E	01
200	4.54526566	11	1.1657559E	01	3.7460753E-0		00
250	1.8221158E	14	1.4260576E	01	1.5154718E-0		00
3))	1.0268192E	16	1.6011494E	01	8.6135417E-0		00
350	1.8728322E	17	1.7272499E	21	1.5833121E-0		_
400	1.6798889E	18	1.3225281E	01	1.43C0749E-0		
450	9.358379CE	18	1.8971201E	0.1	H. 0154739E-0		
500	3.7271353E	19	1.9571375E	C1	3.2094156E 0		
630		2 C	2.0477999E	21			00
730	1.7512100E	21	2.1130723E	01			00
800	4.2009403E	21	2.1623346E	C1			00
900		22	2.2008499E	01			00
1000 1500	2.0798603E 1.8091251E	22 23	2.2318034E 2.3257468E	01			00
2000		23	2.3739811E	01			00
2500		24	2.40397365	01			00
3000		24	2.4248460E	21			00
350)		24	2.4404756E	01			00
4000		24	2.45278926	01			00
4530		24	2.4628553E	01			00
5000		24	2.47131628	01			00
6000		24	2.4849324E	01			00
7000		24	2.4955996	01			00
8003		25	2.5043237E	01			00
9000		25	2.5116811E	01			CO
1 10 00	1.51460275	25	2.5180299E	01			00
290	5.11194386	ló	1.5708509E	J 1			00
295	7.2862962E	15	1.5862507E	01			00
299	9.5958941E	15	1.5982085E	01			00
300	1.02681925	16	1.6011494E	01			00
301		16	1.6040712E	01		4 -3.3355292E (
305		16	1.61557145	01		3 -2.9202437E	
310		16		01		3 -2.7802115E G	
204û		23	2.3768736E	01	5.2878658E 0		00
2870		24	2.4200323E	01	1.4343221E 0		00
5600		24		01	5.7198695E 0		
6103	7.26277825	24	2.4861103E	01	6.5984446E 0	5 5.8194416E (טנ

R.K.H. Gcbel, Blackbody functions.

Blackbody Quantum Radiance ${\rm Q}_{0,\Delta\lambda}$ and Radiance ${\rm N}_{0,\Delta\lambda}$ Spectral interval $-0.7 \mu m$ to $1.3 \mu m$

Т	$Q_0, \Delta\lambda$	-1	Log _{lo} Qo,Δλ		N ₀ ,Δλ	$log_{10} N_{O,\Delta\lambda}$
°K	Quanta $s^{-1}m^{-2}s$	sr ⁻¹			$W m^{-2} sr^{-1}$	
50	0.				0.	
105	э.				7.	
150	0.				0.	
200	0.				0.	
250	0.	_			5.7837833E-14	
300		9.0	8.8703J92E	00	1.1663439E-13	
350	1.6985542E	11	1.1230105E	01	2.6834383E-03	
400	1.0201348E	13		01	1.6195412E-J6	
450	2.5054792E	14	1.43988918	Ül	3.99757985-05	
500	3.286192CE	15	1.5516693E	01	5.2697936E-04	
600	1.6065258E	17	1.7205888E	01		-1.5845580E 00
700	2.6611040E	18	1.8425062E	31	4.3566429E-01	-3.6084803E-01
800	2.2343580E	19		01	3.697027CE 00	5.6785263E-01
900	1.1902313E	20		01	1.9906788E 01	1.2990012E 00
1000 1500	4.6040562E 3.0040489E	2 C 2 Z		01	7.7843011E 01 5.3561037E 03	1.8912196E 00 3.7288490E 00
2003	2.7120962E	23		01	5.06144328 04	4.7042744E 00
2500	1.0768663E	24		01	2.0823538E 05	5.3185545E 00
3000	2.79154328	24		01	5.5441931E 35	5.7438394E 00
3500	5.6271337E	24		01	1.1402698E 06	6.0573077E 00
4300	9.6539069E	24		01	1.9864411£ 05	6.2980757E CO
45))	1.4842187E	25	2.5171498E	oi	3.090522JE 36	6.49003198 00
5000	2.1176981E	25		01	4.4364782E 06	6.6470384E 00
6000	3.6428843E	25		Cl	7.7627298E 06	6.8900145E 00
7000	5.4757802E	25	2.5738446E	01	1.1778684E 07	7.0710968E 00
8030	7.5370316E	25	2.5877200E	01	1.6322591E 07	7.2127891E 00
9303	9.7717252E	25	2.5989971E	01	2.1269636E 07	7.3277601E 00
10000	1.2139436E	26	2.6084198E	01	2.6527010E 07	7.4236883E CO
290	2.0043509E	60	8.3020822E	00	3.1504307E-11	-1.0501630E 01
295	3.8995566E	80	8.5910152E	00	6.1281615E-11	
299	6.5323758E	08		00	1.0272034E-10	
300	7.4183812E		8.8703092E			-9.9331735E 30
301	8.4065702E	80	8.9246188E	00	1.3231616E-10	-9.8783872E 00
335	1.3816444E	09	9.1403964E	00	2.1740483E-10	
310	2.5247750E	96	9.4022228E	00	3.973U098E-10	-9.4008805E 00
2040	3.09765485	23	2.3491033E	01	5.7995838E 94	4.7633969E 00
2870	2.2437380E	24	2.4350972E	01	4.4285717E 05	5.6462637E 00
5600	2.9892847E	25	2.5475567E	01	6.3392330E 06	6.8020368E 00
6133	3.8139760E	25	2.5581378E	01	9.1362419E 06	6.9104239E 00

R.K.H. Gebel, Blackbody functions.

Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$ Spectral interval 0.9 μm to 1.3 μm

Ţ	Qo, Ax		Log ₁₀ Qo,Δλ		No, AA	$Log_{10} N_{0,\Delta\lambda}$	
	ta $s^{-1}m^{-2}s$	r ⁻¹			$W m^{-2} sr^{-1}$		
5)	o.				0.		
100	U.				0.		
150	′)。				0.		
200	0.				0.		
250	0.				5.7837833E-14		01
300	7.41838125	38	8.9703092E	00	1.1663439E-10		00
350	1.69865425	11	1.123C105E	01	2.6334328E-08		00
400	1.0201253E	13	1.30086546	01	1.6195197E-06	-5.7906138E	00
450	2.505388GE	14	1.4398875E	01	3.9973724E-05		00
500	3.28583605	15	1.5516646E	01	5.2689816E-04		00
600	1.6056344E	17	1.7205647E	01	2.6007606E-02	-1.5848996E	
7) J 800	2.6563746E 2.2245802E	18	1.8424289E 1.9347307E	31	4.3457122E-01 3.6749843E 00	-3.6193903E-	
900	1.1803347E	1 S 2 C	2.3072005E	01	1.9675263E 01	5.6525549E- 1.2939206E	00
1000	4.5387189E	20	2.J656933E	31	7.6306151E 01	1.8825594E	00
1500	2.8J19119E	22	2.2447454E	01	4.8705226E 03		00
2300	2.33792816	23	2.3369831E	01	4.1506202E 04		00
2500	8.5694561E	23	2.3932953E	οi	1.5423407E 05		00
3000	2.0679713E	24	2.4315544E	01	3.7567762E 05		00
3500	3.9218512E	24	2.4593491E	01	7.1718938E 05		00
4000	6.3932498E	24	2.4805722E	01	1.1748447E 06	6.0699805E	00
4530	9.4190259E	24	2.4974006E	01	1.7372922E 06	6.2398729E	00
530)	1.2925333E	25	2.5111442E	J1	2.3909090E 06	6.3785631E	00
6000	2.11029195	25	2.5324343E	01	3.9199249E 06		00
7000	3.0459667E	25	2.5483711E	21	5.6739CO1E 06	6.7538818E	00
8000		25	2.5609171E	Cl	7.5898099E 06		00
9000		25	2.5711638E	01	9.6241767E 05		00
13000	6.2760058E	25	2.5797683E	01	1.1746957E 07	7.0699254E	00
290	2.00485095	08	8.3020822E	00	3.1504307E-11	-1 75014305	01
295	3.8995566E	80	8.5910152E	00			
299	6.5323758E	80	8.8150712E	00			00
300	7.41338126	08	8.8703092E	00	1.1663439E-13		-
301		98	8.9246188E	20	1.3231616E-10	-9.8783872E	
305		09	9.1403964E	00	2.1740483E-10	-9.6627309E	
310		39	9.4022228E	00	3.9730098E-10	-9.4008805E	
2340		23	2.3423713E	01	4.71592038 04		00
2870	1.6916870E	24	2.4228320E	01	3.0667229E 05	5.4866746E	
5600		25	2.5247176E	01	3.2769837E 06	6.5154743E	00
6100	2.1991943E	25	2.5342264E	01	4.0864233E 06	6.6113434E	00

R.K.H. Gebel, Blackbody functions.

Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$ Spectral interval 0.7 μm to 0.9 μm

```
Log<sub>10</sub> No,Δλ
   T
                                               N_{O,\Delta\lambda}
            Q_0, \Delta\lambda
                           Log<sub>10</sub> Qo, DA
      Quanta s^{-1}m^{-2}sr^{-1}
                                             W m^{-2} sr^{-1}
                                           0.
   5.)
       0.
  150
       Э.
                                           0.
  150
       0.
                                           2.
  200
       0.
                                           0.
                                           0.
  25Ü
       0.
  300
                                           0.
       0.
  350
                                           5.5547456E-14 -1.3255336E 01
  400
                         7.9747642E 00
        9.4354839E 07
                                           2.1510862E-11 -1.0667342E 01
        9.1232518E 09
                         9.9601496E 30
                                           2.U739520E-09 -8.6832014E 00
  450
                                           8.1197455E-08 -7.0904576E 00
  500
       3.5599183E 11
                         1.1551440E 01
  600
       8.9137744E 13
                         1.3950062E 01
                                           2.0467636E-05 -4.6889330E 00
  700
       4.7293882E 15
                         1.5674805E 31
                                           1.0930687E-U3 -2.9613525E 00
       9.47776035 16
  603
                         1.6976707E 01
                                           2.2342664E-02 -1.6567359E 00
       9.8966163E 17
                         1.7995487E 01
1.8815161E 01
2.1305645E 01
  910
                                           2.3152460E-01 -6.3540285E-01
       6.5337198F 18
2.0213694ē 21
 1703
                                           1.5368802E 90
                                                            1.8664001E-01
                                           4.85581JOE 02
 1500
                                                             2.6862617E 00
       3.7416804E 22
 2000
                         2.2573067E 01
                                           9.1082294E 03
                                                             3.9594340E 00
       2.1992372E 23
                         2.3342266E 01
                                           5.4001310E 04
                                                            4.7324043E 00
 2500
       7.2357182E 23
 3000
                         2.3859482E 01
                                           1.7874168E 05
                                                            5.2522259E JO
 3500
       1.7052825c 24
                         2.4231796E 01
                                           4.2308044E 05
                                                             5.626423JE 00
 4000
       3.2606573E 24
                         2.4513305c 01
                                           8.1159643E 05
                                                             5.9093401E 00
       5.4231607E 24
 450u
                         2.4734252E 01
                                           1.3532298E J6
                                                            6.1313716E 00
       8.1d16480E 24
1.5325924E 25
2.4299136E 25
 500)
                         2.4912841E 01
                                           2.0455692E 06
                                                            6.3109143E 00
 6000
                         2.5185427E 01
                                           3.8428050E 05
                                                            6.5846484E 00
                         2.5385591E 01
                                           6.1047838E 06
 7000
                                                            6.7856703E 00
       3.47)9925E 25
                         2.5540453E 01
                                           8.7327807E 06
                                                            6.9411526E 00
 8000
       4.6237321E 25
 900)
                         2.5664993E 01
                                           1.1645459E 07
                                                            7.0661566E 00
10000
       5.863430CE 25
                         2.5768152E 01
                                           1.4780053F 07
                                                            7.1696761E 90
  290
       0.
                                           0.
  295
       0.
                                           ·).
  299
                                           ).
        0.
  300
       0.
                                           0.
  301
                                           0.
  305
       Ú.
                                           0.
  310
       0.
                                           0.
                                           1.0836635E 04
 2040
        4.4480206E 22
                         2.2648167E 01
                                                            4.03489455 00
                         2.3741979E 01
2.5087259E 01
 2870
        5.5205101E 23
                                           1.3618487E 05
                                                             5.1341289E 00
       1.222529CE 25
1.6147817E 25
 5600
                                           3.0622492E 06
                                                             6.4860405E 00
                         2.5208114E 01
                                           4.0498186E J6
 6100
                                                            6.6074356E 00
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R.K.H. Gebel, Blackbody functions.

Blackbody Quantum Radiance ${\rm Q}_{0,\Delta\lambda}$ and Radiance ${\rm N}_{0,\Delta\lambda}$ Spectral interval $-0.2{\rm um}$ to $0.3{\rm um}$

T °K	$\begin{array}{c} Q_0, \Delta\lambda \\ \text{Quanta s}^{-1}\text{m}^{-2}\text{s} \end{array}$	Log ₁₀ Qο,Δλ	N ₀ ,Δλ W m ⁻² sr ⁻¹	Log ₁₀ No,Δλ
500 150 250 350 4500 600 15000 15000 15000 45000 45000 45000 45000 8000 1000 8000	1.7927495E 2.0922734E 1.3493579E 5.8428432E 1.9099873E 1.1561650E 4.271616UE 1.1535546E 2.5295573E	16 1.6568283E 18 1.8777014E 20 2.0253519E 21 2.1320618E 22 2.2130127E 22 2.2766624E 23 2.3281030E 24 2.4063020E 24 2.4630592E 25 2.5062038E 25 2.5401497E	01 2.6823337E-J2 01 4.1910729E 00 01 1.2703815E J2 01 1.4998706E J3 01 9.7812212E J3 01 4.2800407E 04 01 1.4128303E J5 01 8.7002110E J5 01 3.2603719E J6 01 9.9080307E J6	2.1039342E 00 3.1760538E 00 3.9903931E 00 4.6314480E 00 5.1500900E 00 5.9395298E 00 6.5132672E 00
290 295 299 300 301 305 310 2040 2870 5600 6100	8.2708828E		01 5.8430936E 01 01 4.5275664E 05	-1.3575608E 00 1.7666429E 00 5.6558648E 00 6.0049226E 00

R.K.H. Gebel, Blackbody functions.

Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$ Spectral interval $0.3\mu m$ to $0.4\mu m$

T	$Q_{O,\Delta\lambda}$	ı L	.og ₁₀ Q _{0,Δλ}		$N_{O,\Delta\lambda}$	Logio No, Ax
°K	Quanta s ⁻¹ m ⁻² s	r ⁻¹			$W m^{-2} sr^{-1}$	
50 130 150 250 300 350 400 450 500	0.				0. 0. 0. 0. 0. 0.	
700 809 900 1000 1500 2500 3500 4500 4500 6000 7000 8000 10009	0. 1.0747606E 6.5762464E 1.6338682E 8.9564174E 4.157652CE 5.5435566E 3.5953541E 1.4792241E 4.4803819E 1.0932771E 4.2096314E 1.1122166E 2.3185162E 4.1243141E 6.5643264E	1C 1 1e 1 18 1 20 2 21 2 22 2 23 2 23 2 24 2 24 2 25 2 25 2	.0313118E .0817978E .6213217E .6952134E .0618848E .1743788E .2555742E .3170034E .3651315E .4038730E .4038730E .4624244E .5046189E .5046189E .5365210E .5615352E .5817190E	00 01 01 01 01 01 01 01 01 01 01	3.3639101E-09 8.4806633E-03	-1.1518218E J1 -9.2586122E C0 -7.4731557E CO -2.0715702E CO 6.7367727E-C1 2.3460889E CO 3.4759154E CO 4.2919642E CO 4.9096673E CO 5.3835996E CO 5.7835996E CO 6.3728597E CO 6.7975711E CO 7.1186931E CO 7.3704706E CO 7.5736093E CO
290 295 299 300 301 305 310 2040 2870 5600 6100	0. 0. 0. 0. 0. 1.302J067E 3.0752575E 2.5970952E 4.7042774E	21 2. 24 2.	4414488E	01 01 01	0. 0. 0. 0. 0. 0. 0. 0. 1.6550731E 03 1.4512619E 06 2.6388995E 06	8.3663934E-01 3.2188172E 00 6.1517458E 00 6.4214229E 00

R.K.H. Gebel, Blackbody functions.

Blackbody Quantum Radiance ${\rm Q}_{\rm O,\Delta\lambda}$ and Radiance ${\rm N}_{\rm O,\Delta\lambda}$ Spectral interval $-0.4\mu m$ to $0.5\mu m$

T °K	Qo, $\Delta\lambda$ Quanta $s^{-1}m^{-2}s$	Log _{.0} Qo,Δλ	N _{O,Δλ} W m ⁻² sr ⁻¹	Log_{10} $N_{O,\Delta\lambda}$
100 150 150 250 350 450 350 450 100 150 150 150 150 150 150 150 150 1	0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 1.5856099E 3.3670381E 2.0754278E 5.6777533E 1.2764553E 2.0694104E 4.5428926E 3.6261548E 1.6145810E 4.9778878E 1.1995342E 2.4309000E 7.0532498E 1.5187421E 2.714304E 4.2853251E		0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0	-1.J155425E 01 -7.8608913E 00 -6.0695512E 00 -4.6309005E 00 -2.7181315E-01 1.9437369E 00 3.2894893E 00 4.1947967E 00 4.8458462E 00 5.3367311E 00 5.7202113E 00 6.0281923E 00 6.4926684E 00 6.8270838E 00 7.0802360E 00 7.2793092E 00 7.4406085E 00
290 295 299 301 305 310 2040 2870 5600 6100	4.8168460E	2G 2.C446795E 22 2.2354546E 24 2.4682763E 24 2.4886477E	0. 0. 0. 0. 0. 0. 0. 01 1.1887062E 02 01 9.7532680E 03 01 2.1202107E 06 01 3.3955374E 06	2.0750745E 00 3.9891502E 00 6.3263791E 00 6.5309085E 00

R.K.H. Gebel, Blackbody functions.

Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$ Spectral interval $-0.5\mu m$ to $0.6\mu m$

T	$Q_{O,\Delta\lambda}$	Log _{lo} Qo,Δλ	$N_{O,\Delta\lambda}$	Log ₁₀ No,Δλ
°K	Quanta $s^{-1}m^{-2}sr^{-1}$	1	$W m^{-2} sr^{-1}$	
50 100 150 200 250 300 350 400 450 500	0. 0. 0. 0. 0. 0.		0.	
600 700 800 900 1000 2500 3000 3500 4000 4500 5000 5000 8000 9000	3.1844758E 08 1.1364075E 11 9.4611483E 12 2.9900527E 14 4.787J959E 15 2.1132914E 19 1.4797564E 21 1.9331949E 22 1.0825908E 23 3.724939CE 23 9.4415444E 25 1.9511625E 24 3.4948934E 24 1.590954CE 25 2.5801944E 25 2.5801944E 25 3.7823192E 25 5.1656103E 25	1.1055534E 1.2975944E 1.4475679E 1.5680072E 1.9324959E 2.1170190E 2.2286276E 2.3034464E 2.3571119E 2.3975043E 2.4290293E 2.4543434E 2.4925602E 2.5201657E 2.5577758E		-5.4891535E 00 -3.9877077E 00
290 295 299 300 301 305 310 2040 2870 5600 6100	0. 0. 0. 0. 0. 0. 1.9023814E 21 7.3233125E 22 6.1471741E 24 9.0597334E 24	2 · 2864707E 2 · 4788676E	01 2.6163023E 04 C1 2.2222942E 06	2.8282680E 00 4.4176880E 00 6.3468016E 00 6.5156823E 00

Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$ Spectral interval 0.6 μ m to 0.7 μ m

```
Logio No, La
            Qo, AA
                          Log<sub>10</sub> Qo,Δλ
                                               No. AX
  ^{\circ}K Quanta s^{-1}m^{-2}sr^{-1}
       ).
   50
        0.
  100
                                            Э.
                                           1).
  150
        ٦.
  20)
        ).
                                            0.
  25)
        0.
                                           0.
  3:5
        ٦.
                                           0.
  356
        v.
                                            J.
  431
        ).
                                           0.
  45.)
                                           1.5178961E-13 -1.2818758E 01
        Э.
                                           1.8199638E-11 -1.0739937E 01
  500
        6.1428932E C7
                         7.7883731E 00
  600
       7.1351557E 1C
                         1.0853404E 01
                                           2.J362344E-03 -7.680637CE 00
       1.1154906E 13
5.0113783E 14
                         1.3047466E 01
                                           3.2759673E-U6 -5.4846635E 70
  7.00
                         1.4699957E 01
                                           1.4775971E-04 -3.8304440E 00
  300
       9.7745419E 15
  930
                          1.5990096E 01
                                           2.8922668E-03 -2.5387617E 00
       1.0609332E 17
1.4264661E 20
 1000
                          1.7025688E 01
                                           3.1492044E-02 -1.5017992E 00
                                           4.2819092E 01
                          2.)154261E G1
                                                            1.6316375E 00
 1505
        5.40412255 21
                          2.1732725E 01
                                           1.6327721E 03
                                                             3.2129256E 00
 2000
                         2.2684941E 01
                                           1.4687081E 04
25))
       4.841)65CE 22
                                                            4.1669355E 00
       2. 1996794E 23
                         2.3322153E 01
                                           5.389131CE 04
                                                             4.8053738E 00
 3000
 350)
       6.0087516F 23
                         2.3778784E 01
                                           1.8318484E 35
                                                             5.2628896E 00
       1.3256765E 24
                         2.4122438E 01
                                           4.0476849E 05
                                                             5.6072068E 00
400.
                         2.4390824E 01
                                           7.5180764E 05
450)
       2.4593706E 24
                                                             5.8761067E 00
       4.04224460 24
3.5732076E 24
1.4815636E 25
                                           1.2368367E 06
2.6283638E 06
                                                             6.0923124E 00
6.4195855E 00
5000
                         2.4606623E 01
                         2.49333976 01
2.51707206 01
2.53523976 01
0000
                                           4.5438527E 06
                                                             6.6574243E 00
73))
       2.251 1772E 25
                                           6.9086895F 06
                                                             6.8393956E JC
8000
       3.140815CE 25
                         2.5497043E G1
                                           9.6443856E J6
9100
                                                             6.9842746E UO
       4.12830918 25
                        2.5615772E 01
                                           1.26817895 07
10000
                                                            7.1031806F 00
  290
       0.
                                           0.
  295
                                           Э.
        ).
  299
        J.
                                            0.
  300
       Э.
                                            7.
  301
        Э.
                                           0.
  335
        ).
                                           0.
 310
        ٦.
                                           7.
       6.69734103 21
1.505385CE 23
2940
                         2.1825902E U1
                                           2.0243043E J3
                                                             3.3062758E CO
                         2.3177648E 01
2.4816134E 01
                                           4.5770865E 04
2.0054449E 06
2870
                                                             4.6605892E 00
        6.548379CE 24
                                                             6.3022107E CO
5633
6100 9.12995215 24 2.49604215 01
                                          2.7974229E 06
                                                            6.4467582E 00
```

R.K.H. Gebel, Blackbody functions.

Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$ Spectral interval 0.7µm to 0.8µm

```
Log<sub>10</sub> No,Δλ
             Qo, DA
                           Log<sub>10</sub> Qo,Δλ
                                                 N_{O,\Delta\lambda}
   ^{\circ}K Quanta s^{-1}m^{-2}sr^{-1}
                                               W m^{-2} sr^{-1}
   50
       0.
                                            0.
                                            C .
  100
       C.
  150
                                            0.
        Э.
  200
        0.
  250
                                             ).
        0.
                                            0.
  300
       0.
  350
                                            0.
        9.
  400
        0.
                                            1.89523J1E-13 -1.2722338E 01
  45Ú
        1.3434507E 38
                          8.1282218E 00
                                            3.43C4452E-11 -1.0464649E 01
        8.1588789E 09
                          9.9116306E 00
                                            2.0842442E-07 -8.6810515E 00
  500
        3.9339567E 12
                         1.2594829E 01
                                            1.C092566E-05 -5.9959984E 00
  633
        3.3091527E 14
  7.30
                          1.4519586E 01
                                            3.5207832E-05 -4.0695205E 00
  8C0
       9.300335CE 15
                          1.5968499E 01
                                            2.4036075E-03 -2.6191365E 00
  900
       1.2559873E 17
                          1.7098985E J1
                                            3.2553993E-02 -1.4873957E 00
 1000
       1.0134589E 18
                         1.8005836E 01
                                            2.6332818E-01 -5.7950265E-01
       5.5029798E 20
                          2.0740598E 01
 1500
                                            1.4416102E 02 2.1588479E GO
       1.3086178E 22
8.8248991E 22
3.1623600E 23
7.3939561E 23
                                            3.4435283E J3
2.3286332E O4
 2000
                          2.2116813E 01
                                                              3.5370037E JO
                          2.2945710E 01
2.3500011E 01
 2500
                                                              4.3671011£ 00
                                            8.3600931E 04
 3000
                                                              4.9222112E 00
                                            2.08964J6E 35
                          2.3897295E 01
                                                              5.32037165 00
35))
       1.5724687E 24
                          2.4196582E J1
                                            4.1666632E 35
 4000
                                                              5.6197884E 00
       2.696022CE 24
                                            7.1492370E 05
                                                              5.3542597E 00
                         2.4430723E 01
 450)
 5000
        4.1631634E 24
                          2.4619423E 01
                                            1.10463685 36
                                                              6.34321965 00
       d. 76 13058E 24
                          2.4906352E 11
                                            2.1405594E 06
                                                              5.3305273E 00
 6000
 7000
       1.305429Cc 25
                          2.5116086E 31
                                            3.4715446E 35
                                                              6.54052285 00
       1.8954845c 25
2.5542827E 25
3.2678809E 25
                          2.5277720E 01
2.5407269E 01
2.5514266E C1
                                            5.0390182E 06
 9000
                                                              6.7023460E 00
                                            6.7926065E 06
8.6924784E 05
 9007
                                                              6.8320365E CO
10000
                                                              6.9391437E JO
  290
        ).
                                            0.
  295
       Ú.
                                            9.
       0.
  299
                                            0.
  300
                                            0.
       0.
  301
        Э.
  305
 310
       0.
                                            ာ.
                         2.2197965E 01
                                            4.1521438E 03
2040
       1.5774835E 22
                                                              3.6182725E 00
      2.3676468E 23
6.3559767E 24
8.514650CE 24
                         2.3374317E 01
                                            6.2565285E 04
2873
                                                              4.7963334E 00
                          2.4803182E 01
2.4930167E 01
                                            1.6874235E 06
                                                              6.2272242E 00
 5600
                                            2.2613773E 06
                                                              6.3543731E 00
51CJ
```

R.K.H. Gebel, Blackbody functions.

Blackbody Quantum Radiance ${\rm Q_{O}}_{,\Delta\lambda}$ and Radiance ${\rm N_{O}}_{,\Delta\lambda}$ Spectral interval $-0.6\mu m$ to $0.9\mu m$

T	Qo, Ax	Log _{io} Qo,Δλ	$N_{O,\Delta\lambda}$	Log ₁₀ No,Δλ
°K	Quanta $s^{-1}m^{-2}sr^{-1}$		$W m^{-2} sr^{-1}$	
°K 100 150 250 360 350 450 450 600 700 800 1500 2500 2500 4500 4500	Quanta s ⁻¹ m ⁻² sr ⁻¹ 0. 0. 0. 0. 0. 0. 0. 9.4354839E 07 9.1232518E 09 3.5605325E 11 8.9209095E 15 4.7405431E 15 9.5278941E 16 9.9943618E 17 6.6398131E 18 2.164016CE 21 4.2820927E 22 2.6833137E 23 9.3353976E 23 2.3061577E 24 4.5863338E 24 7.8825315E 24	7.9747642E 9.9631496E 1.1551515E 1.3950409E 1.5675828E 1.6978997E 1.7999755E 1.8822156E 2.1335260E 2.2631656E 2.3428671E 2.3970133E 2.4362889E 2.4661466E 2.4896666E	W m ⁻² sr ⁻¹ 0. 0. 0. 0. 0. 0. 5.5547456E-14 00 2.1510862E-11 00 2.0741038E-09 01 3.1215655E-08 01 2.0488469E-05 01 1.0963447E-03 01 2.2190424E-02 01 2.3441637E-01 01 1.5683722E 00 01 5.2840C09E 02 01 1.0741001E 04 01 2.4262300E 05 01 6.0626528E 05 01 1.2163649E 06 01 2.1050374E 06	-1.3255336E 01 -1.0667342E 01 -8.6831696E 00 -7.0903603E 00 -4.6884905E 00 -2.9600529E 00 -1.6538344E 00 -6.3001113E-01 1.9544914E-01 2.7229629E 00 4.0310448E 00 4.8368834E 00 5.3849320E 00 5.7826627E 00 6.3232598E 00
5 000 6000	1.22238932 25 2.3904131E 25		3.2824059£ 06 01 6.4711686E 06	6.5161923E 00 6.8109828E 00
700) 00 : 8	3.9114771E 25 5.7223697£ 25		01 1.0648637E 07	7.0272941E 00
9000	5.7223697£ 25 7.7645472£ 25		01 1.5641470E 07 J1 2.1289845E 07	7.1942776E 00 7.3281725E 00
10000	9.99173928 25		01 2.7461841E 37	7.4387297E 00
293 295 299	0. n. J.		0. 0. 0.	
300 301 305 310	3. 3. 9. 0.		0. 0. 0.	
2040 2875 5640 6100	5.1177548E 22 7.0258952E 23 1.8773669E 25 2.5276769E 25	2.5273549E	31 1.2860939E 04 31 1.8195574E 05 31 5.0676941E 06 31 6.8472415E 06	4.1092727E 00 5.2599658E 00 6.7048104E 30 6.8355157E 00

Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$ Spectral interval 0.9 μ m to 1.0 μ m

T °K	$Q_0,\Delta\lambda$ Quanta $s^{-1}m^{-2}s$	r ⁻¹	Log ₁₀ Qo,Δλ		$N_0,\Delta\lambda$ $W m^{-2}sr^{-1}$	Log ₁₀ N _{O, Δλ}
50 100 150 200 350 450 500 900 1500 2500 4500 2500 4500 4500 6000 4500 6000 7000 800 900 900 900 900 900 900 900 900	0. 0. 0. 0. 0. 2.1077124E 4.1144428E 2.5043957E 6.7493587E 9.5708146E 3.3310823E 4.8040238E 3.8442177E 2.0347369E 3.7892972E 1.7219077E 4.7432041E 9.8254069E 1.7046869E 2.6295176E 3.7369743E 6.4104981E 9.5619619E 1.3065256E 1.6829737E	J7 09 11 12 14 16 17 12 22 33 24 24 24 25 25	7.3236671E 9.6143111E 1.1398703E 1.2829262E 1.4980949E 1.6522585E 1.7661605E 1.8584808E 1.93J8508E 2.1485952E 2.2578559E 2.3236J10E 2.3676072E 2.3992350E 2.4231644E 2.4419876E 2.4572520E 2.4806892E 2.4980547E 2.5116118E 2.5226077E	00 01 01 01 01 01 01 01 01 01 01	8.3965012E-10 5.1211486E-08 1.382995CE-06 1.9678482E-04 6.8673819E-03 9.9251375E-02 7.9558836E-01 4.2170118E 00 5.3734112E 02 7.9062769E 03 3.5976797E 04 9.9193052E 04 2.0560762E 05 3.5689343E 05 5.5071391E 05 7.8287413E 05 1.3435077E 06 2.045455E 06 2.7395146E 06 3.5293776E 06	-1.1365101E 01 -9.0759016E 00 -7.2906327E 00 -5.8591794E 00 -3.7060084E 00 -2.1632088E 00 -1.0032635E 00 -9.9311576E-02 6.2500482E-01 2.8043720E 00 3.8979720E 00 4.5560225E 00 4.9964812E 00 5.3130392E 00 5.5525386E 00 5.7409261E 00 5.8936920E 00 6.1282402E 00 6.3020160E 00 6.4376736E 00 6.5476982E 00
290 295 299 300 301 305 310 2040 2870 5600 6100	2.0791154E 0. 0. 0. 0. 0. 0. 4.3947281E 3.7687795E 5.275323CE 6.7065312E	23 24	2.5317878E 2.2642932E 2.3576201E 2.4722249E 2.4826493E	01 01 01 01 01	4.3606363E 06 0. 0. 0. 0. 1.1395084E-14 9.1707345E 03 7.8799006E 04 1.1054405E 06 1.4055957E 06	-1.3943283E 01 3.9624041E 00 4.8965208E 00 6.0435354E 00 6.1478605E 00

Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$ Spectral interval 1.0um to 1.1um

```
N_{O,\Delta\lambda}
                                                                               Logio No, LA
                                  Log<sub>10</sub> Qo,Δλ
    T
                Q0,2x
         Quanta s^{-1}m^{-2}sr^{-1}
                                                          W m^{-2} sr^{-1}
    5) ).
                                                       0.
                                                       0.
  100
        0.
                                                       0.
  150
         0.
  220
                                                       0.
         0.
  255
          0.
                                                       0.
          1.2062403E 06 6.0814341F 00
  3)J
                                                       2.2987068E-13 -1.2638516E 01
        7.25961545 08
                               8.8609136E 00
                                                      1.3459148E-10 -9.8709824E 00
  350
  400 8.7861511E 10
                               1.0943799E 01 1.6308550E-08 -7.7875847E 00
        3.6896572E 12 1.2566986E 01 6.8626390E-07 -6.1635089E 00 7.3789499E 13 1.3867995F 01 1.3748475E-05 -4.8617455E 00
  45J
  500
  600 6.6663552E 15
                               `.5823921E 01 1.2456529E-03 -2.9046030E 00
        1.67677965 17
                               1.7224476E 01 3.1396316E-02 -1.5031213E 00
  700
                               1.8276895E 01 3.5483076E-01 -4.4997874E-01
        1.8918848E 18
  8 30
                               1.9096673F 01 2.3462670E 00 3.7037743E-01
1.9753289E 01 1.0652835E 01 1.0274652E 00
2.1727538E 01 1.0073169E 03 3.0031661E 00
2.2717565E 01 9.8612834E 33 3.9939333E 00
2.3313507E 01 3.8933090E 04 4.5903189E 00
 905 1.24931656 19
1000 5.66615998 19
15JJ 5.33995678 21
200J 5.21873188 22
 2500 2.05829345 23 2.33135076 01 3.8933090E 04 4.5903189F 00 3000 5.1636872E 23 2.3712950E 01 9.7737931E 04 4.9900631E 00
        1.0016436E 24 2.4000713E 01
1.6560068E 24 2.4219062E 01
                                                     1.8967952E 05 5.2780205E 00
 3500
                                                      3.1370297E 05 5.4965187E 0C
 4000
 4500 2.4625323E 24 2.4391382E 01
                                                      4.6660729E 05 5.5689516E 00
5000 3.4009711E 24 2.4531603E 01
6000 5.5972799E 24 2.4747977E 01
7000 8.1159964E 24 2.4909342E 01
8000 1.0865668E 25 2.5036056E 01
9000 1.3793675E 25 2.5139365E 01
                                                      6.4455591E 05
                                                                            5.8092607E 00
                                                      1.0611138E 06
1.5389113E 06
2.0605850F 06
                                                                            6.0257620E 00
6.1872135E 00
                                                                            6.31399J5E 10
                                                      2.6142430E 06
                                                                            6.4173460E 00
1000J 1.6826981E 25 2.5226006F 01
                                                     3.19171U4E 06 6.5040236F 00
   29)
         0.
                                                       4.3634774E-14 -1.3360167E 01
                                                       1.0279015E-13 -1.2988048E 01
   295
          Û.
                                                       1.9723568E-13 -1.2705014E 01
   299
         1.2062408E 06 5.3614341E 00 2.2987668E-13 -1.2638516E 01
   300
        1.2183435E 06 6.0857698E 00 2.6333590E-13 -1.2579490E 01
  301
        2.5351273E 06 6.4039999E 00 4.8048806E-13 -1.2318317E 01
   375
  310 3.9927912E 06 6.6012766E 00 9.6858208E-13 -1.2013864E 01
 2040 5.9689359E 22 2.2775897E 01 1.1279993E 04 4.0523089E 00 2870 4.1901894E 23 2.3622233E 01 7.9299655E 04 4.8992713E 00 5600 4.6737396E 24 2.4669665E 01 8.8594080E 05 5.9474047E 00 6100 5.8364259E 24 2.4766147E 01 1.1064761E 06 6.0439421E 00
```

Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$ Spectral interval 1.1µm to 1.2µm

```
Log<sub>10</sub> Qo,Δλ
                                                                 Logio No. DA
   T
                                                 Νο,Δλ
              Q_{O,\Delta\lambda}
       Quanta s^{-1}m^{-2}sr^{-1}
   5.)
                                             0.
  100
       Ú.
                                             .
                                             ٦.
  150
       0.
                                             0.
  200
        0.
  250
        0.
                                             ).
                         7.5865849E 00 6.5763905E-12 -1.1182918E 01
  300
        3.8599707E 07
                         1.C129662E J1
1.2039328E 01
        1.3479133E 1C
1.094782CE 12
  350
                                            2.2892773E-09 -8.5403017E 00
                                            1.8633208E-07 -6.7297124E 00
  400
                                            5.7431645E-06 -5.2408488E CO
        3.3686901E 13
                          1.3527449E J1
  450
  500
        5.2459749E 14
                          1.4719826E 01
                                            8.9568079E-05 -4.0478468E 00
        3.2486663E 16
  600
                          1.6511705E 01
                                            5.5592927E-03 -2.25498U5E 00
        6.2254665E 17
                          1.7794172E 01
  700
                                            1.0671484E-01 -9.7177517E-01
        5.7213323E 18
                          1.8757474E 01
                                            9.8196775E-01 -7.9027666E-03
  LC8
       3.2180481E 19
1.2830794E 20
8.1924284E 21
                                            5.52925992 30 7.4266701E-01
2.2064496E 31 1.3436940E 00
1.4124420E 03 3.1499707E G0
                          1.9537592E 01
2.0108253E 01
  900
 1000
                           2.1913413E 01
 1500
                                            1.1364737E 04 4.0555595E 00
 2000
       6.5831988E 22
                          2.2818437E 01
                                             3.9914544E 04 4.6011312E 00
        2.31032345 23
                          2.3363672E 01
 25 JU
       5.3683463E 23
                          2.37298415 01
 3000
                                            9.2793728E 04 4.9675186E CO
 3500
        9.8704895E 23
                          2.3994339E 01
                                            1.7067493E 05 5.2321698E 00
        1.5692362E 24
2.2653667E 24
                                            2.7141312E 05 5.4336309E 00
 4010
                          2.4195688E 01
 4571
                          2.4355138E 01
                                            3.9189094E 05
                                                               5.5931653E 00
        3.0572917E 24
4.8665856E 24
5.8978230E 24
 5033
                          2.4485337E 01
                                            5.2896757E 35
                                                               5.7234291E 00
                                            8.4219173E U5 5.9254110E GO
1.1938862E O6 6.0769630E OO
1.5725669E O6 6.1966092E OO
1.9706431E O6 6.2946080E OO
                          2.4687224E 01
2.4838712E 01
 6000
7000
        9.0847282E 24
1.1383506E 25
                          2.4958312E 01
 3305
9000
                          2.50562768 01
        1.37647395 25
                          2.5138768E 01
                                            2.3830158E 06 6.3771269E 00
13005
                         6.9403543E 00 1.6057597E-12 -1.1794319E 01
  29)
       8.71574306 06
                         7.2899853E 00 3.2892847E-12 -1.1482898E 01
       1.9497783E C7
  295
                          7.5394818E 00 5.7395583E-12 -1.1241122E 01
  299
       3.4632339E 07
                          7.5865840F 30 6.5763335E-12 -1.1182018E 01
       3.8599707E 07
  30U
                          7.642072 E 30
7.8739218E 00
8.1655481E 00
2.2871777E 31
                                            7.5354583E-12 -1.1122890E 01
1.2866433E-11 -1.0890543E 01
        4.3867366E C7
  3)1
        7.4786257E 07
1.4640234E 08
7.4434941E 22
  305
                                            2.4624775E-11 -1.0608628E 01
  310
                                            1.2850865E 04 4.1089324E 00
 204.1
                                            7.6598734E 04 4.8842216E 00
        4.43192895 23
                         2.3646593= 01
 2673
        4.11152826 24 2.4614003E 01 7.1147019E 05 5.8521568E 00
 5650
       5.7619383E 24 2.4704240E 01 8.7585809E 05 5.9424338E 00
 5120
```

R.K.H. Gebel, Blackbody functions.

Blackbody Quantum Radiance ${\rm Q}_{0,\Delta\lambda}$ and Radiance ${\rm N}_{0,\Delta\lambda}$ Spectral interval $-1.2{\rm um}$ to $1.3{\rm \mu m}$

Т °К	$Q_0,\Delta\lambda$ Quanta $s^{-1}m^{-2}sr^{-1}$	Log _{lo} Qo,Δλ	$_{\text{W m}^{-2}\text{sr}^{-1}}^{\text{N}_{\text{O}},\Delta\lambda}$	Log ₁₀ No,Δλ
50 100 150 200 250 350 400 450 400 3500 4000 3500 4000 8000 8000	0. 0. 0. 0. 7.0203218F 08 1.5563926E 11 9.0144955E 12 2.1291270E 14 2.6806996E 15 1.2045284E 17 1.8328392E 18 1.4155483E 19 6.9515606F 19 2.4855498E 20 1.1425112E 22 7.7880535E 22 2.4789316E 23 5.4044761E 23 9.5061802E 23 1.4633198E 24 2.0616094E 24 2.730957E 24 4.223555CE 24 5.8828857E 24 7.6447375E 24	8.8463571E 00 1.1192119E J1 1.2954941E 01 1.4328202E 01 1.5428248E 01 1.7080817E 01 1.8263124E J1 1.9150925E 01 1.9842082E 01 2.0395423E 01 2.2057860E 01 2.2891429E 01 2.3394265E 01 2.3732753E 01 2.3732753E 01 2.3978006E 01 2.4165339E 01 2.4165339E 01 2.4314206E 01 2.4436178E 01 2.4626192E 01 2.4626192E 01 2.46883363E 01	0. 0. 0. 0. 5.7837833E-14 1.0982822E-10 2.4406145E-08 1.4160395E-06 3.3493085E-05 4.2219861E-04 1.9005875E-02	-1.3237788E 01 -9.9592861E 00 -7.6125009E 00 -5.8489247E 00 -4.4750449E 00 -3.3744832E 00 -1.7211121E 00 -5.3821242E-01 3.5004138E-01 1.0415564E 00 1.5951851E 00 3.2584991E 00 4.0925069E 00 4.0925069E 00 4.9342606E 00 5.1796302E 00 5.3670486E 00 5.1796302E 00 5.3670486E 00 5.5159799E C0 5.6380012E 00 5.8280871E 00 5.9715344E 00 6.0853418E 00
9000 10000	9.4830118E 24 1.1377.183E 25	2.4976946E 01 2.5056u35E 01	1.5099130E 06 1.8115943E 06	6.1789520E 00 6.2580610E 00
290 295 299 300 301 305 310 2040 2870 5600 6100	1.9176835£ 08 3.7045788E 08 6.1860523E 08 7.0203218E 08 7.9557831E 08 1.3043230E 09 2.3743798E 09 8.7213689E 22 4.5259726E 23 3.6069661E 24 4.3879477E 24	8.2827770E 00 8.5687389E C0 8.7914137E 00 8.8463571E 00 8.9006829E 00 9.1153852E 00 9.3755503E 00 2.2940584E 01 2.3655712E 01 2.4557142E 01 2.4642261E 01	5.7889541E-11 9.6783549E-11 1.0982822E-10 1.2451737E-10 2.0405794E-10	-9.9047701E 00 -9.6902466E 00

R.K.H. Gebel, Blackbody functions.

Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$ Spectral interval 1.3µm to 1.4µm

```
N_{O,\Delta\lambda}
                                                                 Logio No, Da
   Τ
                            Log<sub>10</sub> Qo, \Delta\lambda
             Q_0, \Delta\lambda
       Quanta s^{-1}m^{-2}sr^{-1}
                                               W m^{-2} sr^{-1}
   50
       0.
                                             0.
  100
                                             0.
        റ -
  150
                                             С.
        0.
  200
        0.
                                             0.
       7.6786165E 06 6.885283JE 00
                                            1.0796395E-12 -1.1966721E 01
  250
  300
       8.2169126E 09
                         9.9147087E 00
                                            1.1940683E-09 -8.9229709E 00
       1.2397241E 12
                         1.20929748 01
                                            1.8034181E-07 -6.7439036E CO
  350
       5.3627734E 13
                          1.3729389E 01
  400
                                            7.8189422E-06 -5.1068521E 00
                                            1.4727359E-04 -3.8318752E 00
       1.0089050E 15
                          1.5003850E 01
  450
       1.0580965E 16
3.6094396E 17
4.5062228E 18
2.9984287E 19
                                            1.5460541E-03 -2.8107753E 00
                          1.6024525E U1
  500
                         1.7557440E 01
1.8653813E 01
1.9476894E 01
                                            5.2819511E-02 -1.2772056E 00 6.6015648E-01 -1.8035311E-01
  603
  700
                                            4.3963583E 00 6.4309309E-01
  800
       1.3108434E 20
                                            1.9232552E 01 1.2840369E 00
                         2.0117550E 01
  90)
      4.2696031E 2C
1.4820881E 22
                          2.0630388E 01
                                            6.2676466E 01 1.7971045E CC
 1000
                                            2.1791592E U3 3.3382890E 00
                         2.2170874E U1
 1500
 2000 8.7829032E 22
                                            1.2924123E 04 4.1114011E 00
3.7892654E J4 4.5785550E G0
                         2.2943638E 01
       2.5738741E 23
5.3182834E 23
9.0133644E 23
1.3505266E 24
1.8644094E 24
2.4302905E 24
                          2.3410587E 01
 2500
                         2.3725771E 01
2.3954887E 01
2.4130503E 01
2.4270541E 01
                                            7.8319824E 04
                                                              4.8938717E 00
 3000
                                            1.3276349E 05
1.9895790E 05
2.7469402E 05
                                                               5.1230786E 00
 3500
                                                              5.2987612E 00
 4000
                                                              5.4388492E 00
 450)
                          2.4385658E 01
                                             3.5810040E 05
                                                              5.5540048E 00
 5000
       3.67949375 24
                          2.4565788E 01
                                             5.4223858E 05
 6000
                                                              5.7341905E 00
       5.0402685E 24
                         2.4702454E 01
                                            7.4283779E 05
                                                              5.8708940E 00
 7000
       6.47698635 24
 30CU
                         2.4811373E 01
                                            9.5464224E 05
                                                              5.97984U7E 00
 9000
       7.9672091E 24
                         2.4901306E 01
                                            1.1743416E 06
                                                              6.0697945E 00
10000
       9.4763286E 24
                          2.4977556E 01
                                            1.39978J7E 06 6.1460603E 00
  290
       2.451584JE 09
                         9.3894469E 30
                                            3.5615575E-10 -9.4483601E CO
       4.5338081E 09
                          9.6564631E 00
  295
                                            6.5881008E-10 -9.1812398E 00
       7.3074236E 09
8.2169126E 09
9.2326070E 09
1.4603601E 10
                                            1.C618479E-09 -8.9739377E 00
  299
                          9.8637643E CU
                          9.9147087E 00
9.9653244E 00
1.0164460E 01
1.0406211E 01
  300
                                            1.1940683E-09 -8.9229709E 00
                                            1.3417166E-09 -8.8723392E 00
  301
                                             2.1226574E-09 -8.6731201E 0C
  305
       2.5480663E 1J
                                             3.70443910-09 -8.4312776E 00
  310
       9.7553807E 22
                          2.2989244E 01
                                            1.43558J3E 34 4.1570275E 00
 204)
                          2.3653945E 01
                                            6.6376770F 04
 2973
       4.5076014E 23
                                                              4.92201628 00
                         2.4500210E 01
                                            4.6622180E 05 5.6685926E 0C
 5600
       3.1638057E 24
       3.8112758E 24
                         2.4581070E 01
                                            5.6166475E 05 5.7494772E 00
 6100
```

Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$ Spectral interval 1.4µm to 1.5µm

```
Log_{10} N_{0,\Delta\lambda}
                                            Νο,Δλ
                        Log<sub>10</sub> Qo,Δλ
            42,0P
  ^{\circ}K Quanta s^{-1}m^{-2}sr^{-1}
                                           W m^{-2} sr^{-1}
  50
                                         0.
       ·) •
  10)
       υ.
                                          0.
  15<sub>U</sub>
        0.
                                          ).
  2 ) 0
  250
       9.77278465 37
                        7.9900184E 00
                                         1.32786J3E-11 -1.0876848E 01
  300
       6.7948753L 10
                        1.0832181E 01
                                          9.2148460E-09 -8.035512CE CO
                        1.2864713E 01
  35 U
       7.3234118E 12
                                         9.9471911E-07 -6.0022995E 00
       2.4618303E 14
  400
                        1.4391258E 01
                                         3.3479718E-05 -4.4752182E 00
                                         5.1742790E-04 -3.2861502E 00
  450
       3.8009799E 15
                        1.5579896E 01
  500
        3.4014457E 16
                        1.6531664E 01
                                         4.6341472E-03 -2.3347302E GO
       9.1364931E 17
                        1.7960780t 01
 600
                                          1.2463071E-01 -9.0437495E-01
       9.6089003E 18
                        1.89826735 01
 700
                                         1.3119326E 00
                                                          1.1791152E-01
       5.6195946E 19
                                         7.67786265 00
  600
                        1.9749705E 01
                                                          8.8524033E-J1
 900
       2.2215386F 2C
                        2. 1346654E 11
                                         3. J368425E 01
                                                          1.4824223E CC
1000
       6.6750500E 20
                        2.08244545 01
                                         9.1287271E 01
                                                          1.9604103E 90
       1.8181199E 22
 1500
                        2.2259622F 01
                                         2.4896747E 33
                                                          3.3961426E 00
       9.5521908E 22
2.6083136E 23
 2000
                                                          4.1169030E 00
                        2.2980103E J1
                                         1.3088394E 04
                        2.3416360E 01
2.3711707E 01
 2500
                                          3.5753906E 04
                                                          4.55332355 00
       5.148815CE 23
                                         7.0595414E 04
3000
                                                          4.8487765E 00
       9.45543945 23
                        2.3927136E 01
350J
                                         1.1595193E 35
                                                          5.3642783E 30
       1.238336CE 24
                        2.4092838E 01
                                                           5.2300329E 00
 4003
                                         1.6983721E 35
       1.6804186E 24
4500
                        2.42254178 01
                                          2.3048957E 35
                                                           5.3626513E 00
       2.1614647E 24
520)
                                         2.9649169E 05
                        2.43347486 01
                                                           5.4720126E 00
                        2.4576538E 71
2.4637521E 31
6000
       3.2172421E 24
                                         4.4039893E 05
                                                           5.6438463E 00
 7777
        4.3403136E 24
                                          5.95469615
                                                     35
                                                           5.7748597t JO
       5.5251225E 24
                        2.4742342E 01
8000
                                         7.58057345 05
                                                           5.8797022E 00
9330
       6.74322225 24
                        2.48291896 01
                                         9.2590374E 05
                                                          5.9665658E 00
10000
      7.999J221E 24
                        2.4903037E 01
                                         1.C975544E 36
                                                          6.0404261E 00
  291
       2.1980357E 1C
                        1.0342J35E 01
                                          2.9798274E-09 -8.5258089E 00
                        1.0591245E 01
1.0784637E 01
       3.90162115 1C
6.090276C5 1C
                                          5.2901976E-09 -8.2765281E 00
  295
                                          9.2589778E-09 -8.0830737E 00
  299
       6.79487535 10
                        1.3832181E 31
                                          9.2148460E-09 -8.0355120E 00
  333
       7.57565998 10
                         1.J879420E J1
                                          1.02739)8E-08 -7.9882644E 00
  301
                         1.1065268E 31
        1.16216575 11
                                          1.5763212E-08 -7.8023553F 00
  305
       1.9537393E 11
                        1.1293866E 01
                                          2.6504486E-08 -7.5766807E 00
  310
                        2.3022667E 01
                                          1.443719CE 04
                                                          4.1594827E 00
 234)
       1.0535775E 23
       4.4097312E 23
2.7790014E 24
                                          6.0444845E 04
3.8122533E 05
                                                          4.7813593E JO
 2873
                         2.3644314E 01
                                                           5.5811818E 00
 5630
                         2.4443889E J1
                                         4.5547851E 05
                        2.4521155E 01
       3.3201363E 24
 6100
                                                          5.6584679E 00
```

Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$ Spectral interval 1.5µm to 2.0µm

```
LOGIO NO, DA
                         Log<sub>10</sub> Qo, A
                                             N_{C,\Delta\lambda}
            Q_{C,\Delta\lambda}
   ^{\circ}K Ouanta s^{-1}m^{-2}sr^{-1}
                                           W m^{-2} sr^{-1}
   5)
       2.
                                         0.
                                         0.
  100
       0.
  150
       5... 199715 08 8.7210681E 00
                                         5.3822561E-11 -1.0269036E 01
  20)
       8.80071078 11
                        1.1948448E 01
                                         9.1498748E-08 -7.0385849E 00
  251
                        1.4116307E 01
1.5676484E 01
       1.30709458 14
                                         1.3569061E-05 -4.86745025 00
  300
       4.7477030E 15
                                         4.9653344E-04 -3.3040515E 00
  350
                        1.6855224E 01
       7.165134CE 16
                                         7.5473978E-03 -2.1222028E 00
  4(11)
                                         6.3677132E-02 -1.1963165E 00
                        1.7778465E 01
       6.0043393E 17
  450
       3.32612165 18
  500
                        1.8521938E 01
                                         3.5498410E-01 -4.4979109E-01
       4.4348453E 19
                        1.9646878E 01
                                         4.7866909E 00 6.8003539E-01
  600
  700
       2.8762833E 20
                        2.0458831E 01
                                         3.1338933E 01
                                                         1.4960842E 00
       1.18337925 21
3.5843056E 21
                        2.1073124E J1
                                         1.2995329E U2
                                                         2.11376738 00
  800
                        2.1554405E 01
                                         3.9620016E 02
                                                         2.5979147E 00
  900
       8.746217CF 21
1.3155533E 23
5.2514611E 23
                        2.1941820E 01
2.3119108E 01
                                         9.7211937E 02
1.4881246E 04
 1000
                                                         2.9877196E JO
                                                         4.1726394E 00
 1500
                        2.3720280E 01
                                         5.9941723E 04
                                                         4.7777293E 00
 2033
       1.2289964E 24
                        2.4089550E 01
                                         1.41023805 05
                                                         5.14929258 00
 2500
      2.20217125 24
                        2.43428515 01
 3000
                                         2.5354913E 05
                                                         5.4040622E 00
      3.3870932E 24
                        2.4529827E 01
                                         3.9088115E U5
                                                         5.5920448E 00
 35 20
 4200
       4.7335616E 24
                        2.4675188E 01
                                         5.4718124E 05
                                                         5.7381312E 00
                                                         5.8560868E 00
4500
      6.20296375 24
                        2.4792599E J1
                                         7.1793771E 05
       7.76671715 24
                        2.4890237E 01
                                         8.9980136E J5
                                                         5.9541467E 00
5000
600ü
       1.10987C1E 25
                        2.5045272E 01
                                         1.2876230E 05
                                                         6.1097888E 00
                        2.5164894E 01
 7000
       1.4618218E 25
                                         1.6975603E 06
                                                         6.2298253E 00
       1.82616915 25
                        2.5261541E 01
                                         2.1221254E 06
                                                         6.3267711E 00
 8300
       2.1993836F 25
9000
                        2.5342242E 01
                                         2.5568050E 06
                                                         6.4076977E (10
      2.57814485 25
                        2.5411307E 01
                                         2.9987435E 05
10000
                                                         6.4769394E .C
  29J 5.5122325E 13
                       1.37413288 01
                                         5.7137008E-06 -5.2430825E 00
  295
       8.5491828E 13
                       1.3931925E 01
                                         8.86831755-06 -5.05215885 00
                        1.4079913E J1
  299
       1.2020232E 14
                                         1.2476434E-35 -4.9939096E 30
  3 7 7
       1.3070945E 14
                        1.4116307E 01
                                         1.3569061E-05 -4.8674502E 00
  301
       1.42057698 14
                        1.4152465E 31
                                         1.4749345E-J5 -4.8312272E 00
  3)5
       1.9714145E 14
                        1.42947788 01
                                         2.0480777E-35 -4.6886536E 00
                        1.4467621E 01
       2.93538875 14
  310
                                         3. J5150986-05 -4.5154852E GO
       5.70294418 23
                        2.3756099E 01
                                         6.5129263E U4
 2040
                                                         4.81377535 00
2870
       1.92649595 24
                        2.4284768E 01
                                         2,2154191E 05 5.3456519E 00
5637
      9.7385836E 24
                        2.4983496E 01
                                         1.1292732E 05 6.3527990E 00
5100
      1.14435378 25
                        2.5059560E C1
                                        1.32777735 06 6.12312535 50
```

Blackbody Quantum Radiance $Q_{O,\Delta\lambda}$ and Radiance $N_{O,\Delta\lambda}$ Spectral interval 2.0µm to 2.5µm

```
No, Ax
                                                             Log<sub>10</sub> No,Δλ
             Q_{O,\Delta\lambda}
                          Log<sub>10</sub> Qo, \Delta\lambda
   ^{\circ}K Quanta s^{-1}m^{-2}sr^{-1}
                                             W m^{-2} sr^{-1}
   50
       0.
                                           0.
  100
        2.
                                           0.
        2.27677966 37
  15 J
                         7.3573210E 00
                                           1.8683240E-12 -1.1728548E 01
        4.54220275 11
                                           3.7429970E-08 -7.4267805E 00
                        1.1657266E 01
  233
  250
        1.9176937E 14
                        1.4259521E 01
                                          1.5110288E-05 -4.8207273E 00
  300
        1.02116426 16
                        1.6009095E 01
                                          8.55671J4E-04 -3.0676932E 00
       1.8547347E 17
  350
                        1.7268282E 01
                                          1.5651213E-02 -1.8054520E 00
       1.6555283E 18
                         1.8218936E 01
  400
                                          1.4055843E-01 -8.5214309E-01
       9.1743186E 18
3.634314CE 19
2.9009238E 20
  45)
                        1.8962574E 01
                                          7.8304152E-01 -1.0621520E-01
  500
                         1.9560422E 01
                                           3.1160844E 00
                                                           4.9363921E-01
                                                           1.3989167E 00
                                           2.5056284E 01
  655
                         2.0462536E 01
  710
       1.2916648E 21
                                           1.121931CE 02
                         2.1111150E 01
                                                            2.0499662E 00
                                           3.4741703E 02
       3.98231035 21
                         2.1000135E 01
                                                          2.5408511E 00
  300
       9.5962733E 21
                                           8.4010046E 02
  900
                         2.1982102E 01
                                                           2.9243312E 00
 1000
       1.9447200E 22
                         2.2288857E 01
                                          1.7073095E 03
                                                           3.2323123E 00
       1.6548018E 23
 1500
                         2.3218746E 01
                                          1.4652084E 04
                                                           4.1658994E 00
                        2.3695787E 01
 2000
       4.96349375 23
                                          4.4129447E 04
                                                           4.6447285E 00
                                                           4.9424361E 00
 2500
       9.8293080E 23
                         2.3992479E 01
                                          8.7586?77E 04
       1.5815198E 24
2.2588296E 24
                                          1.4114781E 05
2.0179950E 05
 3000
                         2.4199075E 01
                                                           5.1496742E 00
                         2.4353883E 71
2.4475930E 01
                                                            5.3049201E 00
 3500
       2.9917852E 24
                                           2.6747419E J5
4700
                                                            5.4272919E 00
                         2.4575763E 01
                                          3.3678329E 05
 4500
       3.764982CE 24
                                                            5.5273505E 00
 5000
       4.5679678E 24
                         2.4659723E 01
                                           4.087840CE 05
                                                            5.6114939E 00
 6000
       6.2364673E 24
                         2.4754939E 01
                                          5.5843725E 05
                                                            5.7469744E 00
       7.9607759E 24
                         2.4900754E 01
 7000
                                                            5.8531727E 00
                                          7.1313656E 05
                                                           5.9400668E 00
8300
       9.7211481E 24
                         2.4987717E 01
                                           8.7109743E 05
       1.15060838 25
                         2.5060927E 01
2.5124128E 01
                                          1.03128J1E 06
1.1930409E 06
 9300
                                                            6.0133767E 00
12060
       1.3308463E 25
                                                            6.0766554E 00
       5.0865445E 15
7.2488102E 15
                        1.5706423E 01
1.5860267E 01
                                          4.2557267E-04 -3.3710263E 00
  290
  295
                                          6.0694568E-04 -3.2168502E 00
       9.543751CE 15
                        1.59797198 01
                                          7.9958574E-04 -3.0971350E 00
  299
       1.02116425 16
                        1.6009095E 01
                                           9.5567104E-04 -3.0676932E 00
  300
        1.09214755 16
                        1.0039281E 01
                                           9.1528776E-04 -3.0384423E 00
  301
  315
       1.42282985 16
                        1.6153153E 01
                                           1.1931313E-03 -2.9233118E 00
                        1.0292667E 01
  310
       1.9619542E 16
                                          1.6463491E-03 -2.7834781E 00
 2040
       5.3014584E 23
                         2.3724395E 01
                                          4.7145294E 04
                                                           4.6734384E 00
                                          1.2643648E 05
4.9783211E 35
5.7371786E 05
                                                           5.10187245 00
 287
       1.4171488E 24
                         2.4151415E 01
       5.5608396E 24
6.4068046E 24
                        2.4745149E 01
2.4806541E 01
 560)
                                                            5.6970829E JO
                                                          5.7586984E 00
 6100
```

Blackbody Quantum Radiance $v_{0,\Delta\lambda}$ and Radiance $v_{0,\Delta\lambda}$ Spectral interval $2.5\mu m$ to $3.0\mu m$

T	Qo,Δλ	Log ₁₀ Qo,Δλ		$N_{O,\Delta\lambda}$	Log_{10} $N_{O,\Delta\lambda}$	
°K	Quanta $s^{-1}m^{-2}s$	r ⁻¹		$W m^{-2} sr^{-1}$		
50	0.		·	0.		
160	1.		(o.		
150	9.5906701E	09 9.9818491E	00	5.5597848E-10	-9.1831105E	Qn
200	3.8296767E	13 1.3583162E	01 2	2.64490398-06	-5.57759025	G C
25U	5.8025442E	15 1.5763618E	01 4	4.0399699E-J4	-3.3936219E	00
300		17 1.7228049E	01	1.1848144E-02	-1.9263497E	00
350		18 1.8280305E	01	1.3433584E-01	-8.71809C9E-	-01
400	1.1838051E	19 1.9073280E	01	8.3756367E-01	-7.6982164E-	-02
450		19 1.9692443E	01	3.4969992E 00	5.4369554E-	-01
500		2C 2.0189366E		1.1012219E 01	1.0418748E	00
600		2C 2.0937554E		5.1945827E 01	1.79201215	00
700		21 2.1474209E		2.1384409E 02	2.3300973E	00
803		21 2.1878133E		5.4338605E 02	2.7351085E	00
900		22 2.2193383E		1.1251458E 03	3.0512088E	CO
1000		22 2.2446524E		2.0184994E 03	3.3050287E	00
1500		23 2.3216337E		1.19354J5E 04	4.0768372E	00
2000		23 2.3616295E		3.0042201E 04	4.4777318E	00
2500		23 2.3869046E		5.3827911E 04	4.7310076E	30
3000		24 2.4047761E		3.1293103E 04	4.9100537E	00
35:00		24 2.4183507E		1.1117937E 05	5.0460243E	00
4303		24 2.4291784E		1.4271299E 05	5.1544635E	00
4500		24 2.4381245E		1.754070JE 05	5.24404698	00
5000	2.865064CF	24 2.4457134E	01 2	2.0894448E 05	5.32003C9E	CO
6000		24 2.4580638E		2.7776191E 05	5.4436727E	00
7000		24 2.4678592E		3.4811386E 25	5.54172138	00
8000	5.7474898E	24 2.4759478E	01 4	4.1944646E 05	5.62267668	00
9300	6.73319985	24 2.4828221E	01 4	4.9144220E 35	5.69147258	00
10007	7.7252924E	24 2.4887915E	01 9	5.6390666E 05	5.7512073E	00
, 290	9.43770296	16 1.6974866E	04 6	5.6061358E-03	-2.1800525E	00
295		17 1.7103565E		8.8901584E-03	-2.0510905E	00
299		17 1.7203480E		1.1195148E-02	-1.9509702E	20
330		17 1.7228049E		1.1848144E-02		00
301		17 1.7252458E		1.2534592E-02		ÜÜ
305		17 1.73485228	,	1.5644968E-02		00
310		17 1.7465176E		2.0477370E-02		00
2040		23 2.3649501E		3.1768025E 04	4.5019903E	00
2373		24 2.4006301E		7.3878915E 04	4.8685206E	20
5600		24 2.4534967E		2.5000739E 05	5.39795295	0.0
		24 2.4591403E		2.8473986E 05	5.4544483E	
6130	J. 7030393E	C7 C+7371403E		2 • 0 • 1 3 7 0 0 C U 7	フ・サンマヤヤロゴビ	0 0

Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$ Spectral interval 3.0 μ m to 3.5 μ m

```
Log<sub>10</sub> No,Δλ
                                              N_{O,\Delta\lambda}
                          Log<sub>10</sub> Qo, \Delta\lambda
             Qo, sh
                                             W m^{-2} sr^{-1}
   °K Quanta s<sup>-1</sup>iii<sup>-2</sup>sr<sup>-1</sup>
   50
        0.
                                          0.
                         5.6914630E 00
        4.9143145E U5
  100
                                          2.9119421E-14 -1.3535817E 01
        6.7774526E 11
8.4874657E 14
                         1.1831066E 01
1.4928778E 01
  150
                                          3.9889225E-08 -7.3991445E OC
                                          5.0387270E-05 -4.2976792E 00
  200
        5.3340567E 16
                         1.6801682E 01
                                          3.7845050E-03 -2.42199G9E UO
  250
        1.14117288 18
                         1.8057351E 01
  300
                                          6.8510548E-02 -1.1642426E 00
                         1.8958367E 01
        9.0796150E 18
  350
                                          5.4709055E-01 -2.6194078E-01
  400
        4.3232979E 19
                         1.9635815E 01
                                          2.6124353E 00 4.1704555E-01
  450
        1.4598960E 2C
                         2.0164322E 01
                                          8.8418130E 00
                                                           9.4654132E-01
        3.8728520E 20
                         2.0588031E 01
                                          2.3499330E 01
                                                           1.3710555E 00
  5 J.)
                                          1.0221010E 02
  603
        1.6797435E 21
                         2.1225243E 01
                                                            2.0094938E 00
        4.8070013E 21
1.0605412E 22
                                          2.9309574E 02
6.4762958E 02
                         2.1681874E 01
                                                            2.4670095E 00
  720
  800
                         2.2025527E 01
                                                            2.8113267E 00
        1.9674965E 22
                         2.2293914E 01
                                          1.2028922E 03
  936
                                                            3.0802267E 00
        3.2337957£ 22
                         2.2509713E 01
                                          1.9789387E J3
                                                            3.2964324E 00
 1000
        1.4797934E 23
                         2.3170201E 01
 1500
                                          9.0802320E 03
                                                            3.9580970E 00
 2000
        3.3026473E 23
                         2.3518862E 01
                                          2.0290862E 04
                                                            4.3073006E 00
        5.5300519E 23
                         2.3742729E 01
 2500
                                          3.3999335E 04
                                                            4.53147C4E 00
        8.0021720E 23
 3000
                         2.3903208E 01
                                          4.9219776E 04
                                                            4.6921397E 00
 3500
        1.3629167E 24
                         2.4026499E 01
                                          6.5397458E 04
                                                            4.8155609E 00
        1.3359047E 24
1.6160272E 24
                         2.4125775E 01
2.4208449E 01
                                          3.2211200E 04
4000
                                                            4.9149311E JO
                                          9.9466U64E 04
                                                            4.9976749E 00
4500
        1.9J12796E 24
                                          1.1703815E 05
                         2.4279046E 01
                                                            5.0683275E 00
 5000
        2.48228336 24
                         2.4394851E 01
6000
                                          1.5283158E 05
                                                            5.1842'32E 00
        3.0724603E 24
7000
                         2.4487486E 01
                                          1.8919236E U5
                                                            5.2764u36E 0C
CCCR
        3.6684618E 24
                         2.4564484E 01
                                          2.2591339E 05
                                                            5.3539420E 00
9000
        4.2683855E 24
                         2.4630263E 31
                                          2.6287701E 05
                                                            5.4197526E 00
        4.8710737E 24
11000
                         2.4687625E 01
                                          3.C001163E 05
                                                            5.4771382E 00
 293
        6.9250618E 17
                         1.7840424E 01
                                          4.1539294E-02 -1.3815409E CO
 295
       8.92694322 17
                         1.79507038 01
                                          5.3570541E-02 -1.2710740E 00
       1.00718518 18
  299
                        1.8036304E 01
                                          6.5263948E-02 -1.1853267E 00
 300
       1.1411728E 18
                         1.8057351E 01
                                          6.8510548E-02 -1.1642426E 00
 301
        1.19746065 18
                         1.0078261E 01
                                          7.1895752E-02 -1.1432968E 00
        1.4472589E 18
 305
                         1.8160546E 01
                                          8.6922089E-02 -1.0608699E 03
        1.8215982E 18
 310
                         1.8260453E 01
                                          1.0944847E-01 -9.6079031E-01
2041
                        2.3540164E 01
2.3865799E 01
                                          2.1312411E 04 4.3286326E 00
4.5153244E 04 4.6546890E 00
        3.4686761E 23
       7.3417484E 23
2.249517CE 24
                                          4.5153244E 04 4.6546890E 00
1.3842980E 05 5.1412296E 00
2870
                         2.4351896E 01
5600
       2.5409599E 24 2.4404998E 01 1.5644657E 05
                                                          5.1943661E 00
6100
```

Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$ Spectral interval 3.5 μ m to 4.0 μ m

```
Logio No, Ax
                         Log<sub>10</sub> Qo,Δλ
                                              N_{O,\Delta\lambda}
            Q_{O,\Delta\lambda}
                                             W m^{-2} sr^{-1}
   ^{\circ}K Quanta s^{-1}m^{-2}sr^{-1}
   50
       •).
                                          0.
  100
       6.5271032E 07
                        7.8147205E 00
                                          3.3347907E-12 -1.1476931E 01
  150
       1.5660936E 13
                        1.3194818E U1
                                          8.0817711E-07 -6.0924935E 00
       8.1076709E 15
                         1.5908896E 01
                                          4.2132509E-04 -3.3753827E 00
  200
       3.5242464E 17
                        1.7547066E 01
                                          1.84C2O01E-02 -1.7351350E 00
  250
       4.4023838E 18
                        1.8643688E 01
                                          2.3365763E-01 -6.3703217E-01
  300
       2.68739265 19
                        1.9429331E 01
  350
                                          1.4115928E 00
                                                          1.49709438-01
                        2.00199C3E 01
  400
       1.0468943E 20
                                          5.5096453E JO
                                                          7.4112365E-01
  450
       3.0204859E 20
                        2.0480077E 01
                                          1.5920697E 01
                                                           1.2019621E 00
                        2.0848800E 01
2.1403101E 01
2.1800385E 01
  500
       7.0599192E 2C
                                          3.7258130E 01
                                                           1.5712211E 00
       2.5298880E 21
6.3151649E 21
1.2579750E 22
                                          1.3376149E 02
                                                           2.1263311E 00
  500
                                          3.3434251E 02
  7C0
                                                           2.5241916E 00
                         2.2099672E 01
                                                           2.8239084E 00
                                          6.6666611E 02
  0.08
       2.1568176E 22
                         2.2333813E 01
                                          1.1438779E 03
                                                           3.3583797E 00
  900
 1000
       3.3305307E 22
                         2.2522513E 01
                                          1.7674190E J3
                                                           3.2473395E 00
                        2.3104801E 01
       1.2729207E 23
                                          6.7665888E 03
                                                           3.8303698E 00
 1500
       2.6143048E 23
                        2.3417356E 01
 2000
                                          1.3907966E 04
                                                           4.1432636E 00
                        2.3621J04E 01
       4.1783444E 23
                                          2.2238250E 04
                                                           4.3471006E CO
 2530
       5.8712041E 23
7.6436064E 23
9.4683659E 23
                                          3.1256661E 04
                        2.3768727E 01
                                                           4.4949426E UO
 3000
                         2.3883298£ 01
2.3976261E 01
                                          4.0700063E U4
 3500
                                                           4.6095951E 00
4000
                                          5.0421637E 04
                                                           4.7026170E 00
       1.1328273E 24
                                          6.0334252E 04
                         2.4054164E 01
                                                           4.7805640E 00
 4500
       1.3214314E 24
                         2.4121035E 01
                                          7.0383324E 04
                                                           4.8474698E 00
 5000
                        2.4231405E 01
                                          9.0759152E 04
 5000
       1.703745CE 24
                                                           4.9578905E 00
 7000
       2.0906065E 24
                         2.4320272E 01
                                          1.1137645E 05
                                                           5.0467934E 00
                         2.4394509E 01
0008
       2.4803251E 24
                                          1.3214646E 05
                                                           5.1219555E CO
                        2.4458179E 01
                                          1.5301906E 05
                                                           5.1847456E 00
9000
       2.8719628E 24
10000
       3.2649509E 24
                        2.4513876E 01
                                          1.7396383E J5
                                                           5.2404590E 00
                        1.8454347E C1
  290
       2.8467319E 18
                                          1.4906173E-01 -8.2663333E-J1
       3.55310158 18
  295
                        1.8550608E 01
                                          1.8610555E-01 -7.3024067E-01
       4.2233608E 18
                        1.8625319E 71
  299
                                          2.2179213E-01 -6.5542671E-01
       4.4023838E 18
  300
                        1.86436898 01
                                          2.3065763E-01 -6.3703217E-01
       4.5913046E 18
                                          2.4056986E-01 -6.1875878E-01
  301
                        1.8661936E 01
  305
       5.4167979E 18
                        1.8733743E 01
                                          2.8388798E-01 -5.4685299E-01
       6.6209005E 18
                        1.8820917E 01
 31 Ú
                                          3.4709014E-01 -4.5955772E-01
       2.732892CE 23
                        2.3436622E 01
 2040
                                          1.4539481E 04
                                                          4.1625493E 00
2870 5.4219218= 23 2.3734153E 01 5600 1.550134CE 24 2.4190369E 01 6100 1.7422635E 24 2.4241114E 01
                                          2.8863050E 34
                                                          4.4603423E 00
                                          8.2572821E 04
                                                           4.9168372E 00
                                         9.2811922E 04
                                                          4.9676038E CO
```

R.K.H. Gebel, Blackbody functions.

Blackbody Quantum Radiance ${\rm Q}_{0},_{\Delta\lambda}$ and Radiance ${\rm N}_{0},_{\Delta\lambda}$ Spectral interval $-4.0\mu m$ to $4.5\mu m$

T	Qo, Ax		Log_{10} $Q_{0,\Delta\lambda}$		Νο,Δλ	Log_{10} $No, \Delta\lambda$
°K	Quanta $s^{-1}m^{-2}s$	r ⁻¹			$W m^{-2} sr^{-1}$	
50	0.				0.	
100	2.7826636E	09	9.4444607E	00	1.2658114E-10	-9.8976310E 00
150	1.7107514E	14	1.4233187E	01	7.8509954E-06	-5.1050753E 00
20)	4.4162087E	16	1.6645049E	01	2.0376832E-03	-2.6908633E 00
250	1.2551722E	18	1.8098703E	01	5.8119731E-02	-1.2356764E 00
300	1.1768571E		L.9070724E	01	5.4627197E-01	-2.6259108E-01
35·)	5.84145476		1.9766521E	01	2.7163389E'00	4.3398395E-01
400			2.0289243E	01	9.6635216E 00	9.5729698E-01
450	4.9704455E		2.0696395E	01	2.3169236E 01	1.3649117E 00
500	1.0533739E		2.1022583E	01	4.9143965E 01	1.6914702E 00
600	3.2586866E		2.1513042E	01	1.5222521E 02	2.1824866E 00
700	7.3270956E		2.1864932E	31	3.4258620E 02	2.5347699E 00
800	1.3505509E		2.2130511E	01	6.3188818E 02	2.8006403E 00
930	2.1817110E		2.2338797E	01	1.0212898E 03	3.009149UE 00
1000	3.2147877E		2.2507152E	01	1.5054918E 03	3.17767848 00
1500 2 30 0	1.0748180E 2.0764392E		2.3031335E	01	5.0391287E J3	3.7023555E CO
2500 2500	3.2071127E		2.3317319E 2.3506114E	01	9.7401186E 03 1.5048196E 04	3.9885643E 00 4.1774845E 00
3300	4.4101884E		2.3644457E	01	1.5048196E 04 2.0696953E 04	
3500			2.3752604E	01	2.6552602E 04	4.3159064E 00 4.4241071E 00
4900	6.9327505E		2.3840905E	01	3.2542305E 04	4.5124484E 00
4500	9.227706CE		2.3915279E	01	3.8623469E 04	4.5868513E UO
5 00 0	9.53647915		2.3979388E	31	4.4769671E 04	4.6509839E 00
6000			.4085720E	01	5.7193912E 04	4.7573498E 00
7000	1.4851868E		2.41717815	31	6.9732428E 04	4.8434348E 00
8000			.4243956E	01	8.2343025E J4	4.9156269E 00
9900	2.023243CE		2.4306049E	31	9.5001959E 04	4.9777326E 00
10000			2.4360500E	01	1.C769486E 05	5.0321950E 00
235	7.9976493E	le l	.8902962E	01	3.7107508E-01	-4.3053821E-01
295	9.733201CE	18 1	.8988256E	01	4.5169935E-01	-3.4515053E-01
299	1.13357275	19 1	.9054449E	01	5.2615840E-01	-2.7888349E-01
300	1.1768571E	19 1	.9070724E	01	5.4627197E-01	-2.6259108E-01
301			.9086891E		5.6701396E-01	-2.4640625E-01
3.15			.9153505E		6.5656606E-01	
310			. 9227728E			-1.0541258E-C1
2040			.3335090E		1.0147239E 04	4.0063479E 00
2870			.3611969E		1.9204398E 04	4.2834007E 00
5600	1.1120188E		.4046112E		5.2207155E 04	4.7177301E 00
6165	1.2448118E	24 2	.4095104E	01	5.8443528E 04	4.7667364E 00

Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$ Spectral interval 4.5 μ m to 5.0 μ m

```
Log<sub>10</sub> No,Δλ
    T
                              Log_{10} Q_{0,\Delta\lambda}
                                                     N_{O,\Delta\lambda}
               Q_{O,\Delta\lambda}
    ^{\circ}K Quanta s^{-1}m^{-2}sr^{-1}
                                                   W m^{-2} sr^{-1}
   5∪
         5.3994869E 10 1.C732352E 01 2.2127919E-09 -8.6550595E 00
  10ú
        1.1053801E 15 1.5043512E 01 4.5628445E-05 -4.3407643E 00
  150
         1.6277895E 17
                           1.7211598E 01 6.7472189E-03 -2.1708752E 00
  230
         3.2877203E 18
2.4492977E 19
1.0304355E 20
                            1.8516895E 01
1.9389042E 01
                                                1.3663554E-01 -8.6443630E-01
  25 Ú
  300
                                                1.0197458E 00
                                                                   8.4919176E-03
                                                4.2957298E 00 6.3303696E-01
                            2.0013021E 01
  350
        3.0314377E 20
                            2.0481649E 01
                                                1.2650043E 01 1.1020920E 00
  400
         7.0248961E 20 2.0846640E 01
                                                2.9337043E 01 1.4674163E 00
  450
        1.3775261E 21 2.1139100E 01
                                                5.7562875E 01 1.7601425E 00
  500
                                                1.5870889E 02 2.2006012E 00
  600
        3.7945633E 21 2.1579162E 01
        7.8603255E 21 2.1895440E 01
  700
                                                3.2897220E 02 2.5171592E 00
                          2.2134735E 01
2.2322966E 01
  800
        1.36374955 22
                                                5.7102948E 02 2.7566586E 00
        2.1036141E 22 2.2322966E 01
2.9895794E 22 2.2475610E 01
9.0208181E 22 2.2955246E 01
1.6632923E 23 2.3220969E 01
                                                8.8114226E 02
1.2525986E 03
3.7826097E 03
                                                                    2.9450460E CO
  900
                                                                    3.0978119E 00
3.5777915E 00
 1000
 1500
                                                6.9770181E 33
                                                                    3.8436699E 00
 2000
 2500 2.5028471E 23 2.3398434E 01 1.0500804E 04 4.0212226E 00
        3.3853957E 23 2.3529609E 01 1.4205375E 04 4.1524528E 00
 3000
 3500
      4.2937422E 23 2.3632836E 01 1.8018433E 04 4.2557170E 00
       5.2186846E 23 2.3717561E 01 2.1901285E 04 4.3404697E 00
 4000
        6.1548973E 23 2.3789221E 01
                                               2.5831536E 04
                                                                    4.4121503E 00
 4500
        7.0990991E 23 2.3851203E 01
9.0036529E 23 2.3954419E 01
1.0922174E 24 2.4038309E 01
 5000
                                                2.9795386E 24
                                                                    4.4741490E 00
                                                                    4.5773886E JO
4.6612957E DO
 6000
                                                3.7791013E 04
                                                4.5845385E 04
 7000
                          2.4108886E 01
        1.2849489E 24
                                                5.3936744E 04
 8000
                                                                    4.7318847E 00
 9000
        1.4782695E 24
                            2.4169753E 01
                                                6.2052875E 04
                                                                    4.7927620E 00
       1.6720036E 24
                           2.4223237E 01 7.0186403E 04
10000
                                                                    4.8462530E 00
       1.732J342E 19 1.9238556E 01 7.2089348E-01 -1.4212890E-01
  293
  295 2.0657045E 19 1.9315068E 01 8.599076CE-01 -6.5548207E-02
       2.368339GE 19
                           1.9374444E 01 9.8600937E-01 -6.1189529E-03
  299
       2.4492977E 19
                           1.9389042E 01 1.0197458E 00 8.4919176E-03
  300
         2.5324608E 19
                           1.9403543E 01 1.0544019E 00 2.3006169E-02
  301
        2.888025CE 19
3.3873703E 19
                           1.9460601E 01 1.2025854E 00 8.0115932E-02
  305
                           1.9529863E 01 1.4107183E 00 1.4944030E-01
2.3237600E 01 7.2495276E 03 3.8603097E 00
2.3498716E 01 1.3229625E 04 4.1215475E 00
2.3915914E 01 3.4583984E 04 4.5388750E 00
  310
2040 1.7282226E 23 2.3237600E 01 7.2495276E 03 3.8603097E 00 2870 3.1529458E 23 2.3498716E 01 1.3229625E 04 4.1215475E 00 5600 8.2397442E 23 2.3915914E 01 3.4583984E 04 4.5388750E 00 6100 9.1949880E 23 2.3963551E 01 3.8594275E 04 4.5865229E 00
```

Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$ Spectral interval 5.0 μ m to 6.0 μ m

```
Logio No, Gh
                                            N_{O,\Delta\lambda}
                        Logio Qo, Aà
           \lambda \Delta, c \rho
  ^{\circ}K Quanta s^{-1}m^{-2}sr^{-1}
                                           W m^{-2} sr^{-1}
   50
  100
       4.7870959E 12 1.2680072E 01
                                         1.6530649E-07 -6.78171U1E 00
  150
       2.1132914E 16
                        1.6324959E 01
                                         7.4050899E-04 -3.1304697E 00
       1.4797563E 18
  20)
                        1.8170190E 31
                                         5.2347730E-02 -1.2811022E 00
       1.9331949E 19
1.0825908E 2C
3.7249390E 20
  250
                        1.9286276E 01
                                         6.8826369E-01 -1.6224514E-J1
                        2.0034464E 01
2.0571119E 01
  300
                                         3.8716142E 00 5.8789209E-01
  35.)
                                         1.3365255E 01
                                                          1.1259773E 00
       9.4415444E 2C
                                         3.3961628E 01
  400
                        2.0975043E 01
                                                          1.5309885E 00
       1.9511625E 21
                        2.1290293E 01
  450
                                         7.0321613E 01
                                                          1.8470888E CO
       3.49489355 21
                        2.1543434E 01
  500
                                         1.2515622E 02
                                                          2.1009087E 00
  600
       8.4256269E 21
                        2.1925602E 01
                                         3.0485065E 02
                                                          2.4840871E 00
       1.5909540E 22
 701
                        2.2201658E 01
                                         5.7656713E 02
                                                          2.7608499E 00
       2.5801944E 22
  90)
                        2.2411652E 01
                                         9.3618575E 02
                                                          2.9713621E 00
       3.7823192E 22
5.1666104E 22
1.3953122E 23
                        2.2577758E 01
2.2713206E 01
2.3144671E 01
  900
                                         1.3735972E 03
                                                          3.1378594E CC
                                         1.8776376E 03
5.0808189E 03
 1000
                                                          3.2736118E 00
1500
                                                          3.7059337E 00
       2.4473377E 23
                        2.3388694E 01
                                         8.9195621E 03 3.9503435E 00
2000
       3.58133UOE 23
                                         1.3059030E 04 4.1159109E 00
 2500
                        2.3554044E 01
                                                          4.2395527E 00
 3000
       4.7593585E 23
                        2.3677548E 01
                                         1.73601'9E 04
 3500
       5.96351325 23
                        2.3775502£ 01
                                         2.1757 16E 04
                                                        4.3376014E 00
       7.1843623E 23
4000
                        2.3856388E 01
                                         2.6215404E 04
                                                          4.4185566E 00
       8.4164997E 23
9.6566156E 23
1.2152935E 24
45C0
                        2.3925131E 01
                                         3.0715138E 04
                                                          4.4873525E 00
5000
                        2.3984825E 01
                                         3.5244167E 04
                                                          4.5470873E 00
                        2.4084681E 01
6330
                                         4.4361297E 04
                                                          4.6470043E 00
       1.4663138E 24
                        2.4166227E 01
                                         5.3529413E 04
                                                          4.7285925E 00
70C0
                        2.4235075E 01
0CC8
       1.7192068E 24
                                         6.2729574E 04
                                                          4.7974724E 00
       1.9706836E 24
9000
                        2.4294617E 01
                                         7.1951174E 04
                                                          4.8570379E 00
10000
       2.2235702E 24
                        2.4347051E 01
                                         8.1187819E 04
                                                         4.9094909E 00
  290
      6.03926385 19
                       1.9905216E 01
                                         2.8727851E JO 4.5830314E-01
  295
       9.3523809E 19
                        1.9970922E 01
                                         3.3433523E 00 5.2418214E-01
  299
       1.7517?74E 20
                        2.0021924E 01
                                         3.7611308E 00
                                                          5.7531844E-01
                                          3.8716142E JO
  313
       1.0825908E 2C
                         2.0034464E 01
                                                          5.8789209E-01
                                          3.9845859E 00
       1.1140957E 2C
                         2.0046922E 01
  301
                                                          6.0038320E-01
       1.2472346E 20
                         2.3095948E 01
                                          4.4620928E 00
                                                          6.4953961E-01
  305
  310
       1.4304488E 20
                         2.0155472E 01
                                         5.1194184E 00
                                                          7.0922062E-01
       2.5357471E 23
                         2.3404106E 01
                                         9.2422431E 03
                                                          3.9657774E 00
 2040
       4.4500365E 23
                        2.3548363E O1
                                         1.6230697E 04
                                                          4.2103372E 00
 2973
                        2.4047366E 01
       1.1152330E 24
                                         4.0706820E 04
 5600
                                                          4.6096672E 00
 6100 1.2473442E 24
                        2.4093542E 01
                                        4.5276223E 04
                                                          4.6558702E 00
```

R.K.H. Genel Blackbody functions.

Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$ Spectral interval 6.0 μ m to 7.6 μ m

```
N_{O,\Delta\lambda}
                                                                  Logis No. Ax
                            Log_{10} Q_{0,\Delta\lambda}
             Q_0, \Delta\lambda
   ^{\circ}K Quanta s^{-1}m^{-2}sr^{-1}
                                                W m^{-2} sr^{-1}
                         4.7883730E 00 1.8199638E-15 -1.4739937E 01
       6.1428932E 04
                          1.4025688E 01 3.1492044E-J6 -5.5017992E 00
       1.0609332E 14
  100
        1.4264660F 17
5.4041224E 18
4.8410650E 19
2.0996794E 20
6.0087516E 20
                          1.7154261E 01
                                             4.2819092E-J3 -2.3683625E 00
  150
                           1.8732725E 01
1.9684941E 01
                                             1.6327721E-01 -7.8707443E-01
  200
                                             1.4687081E 00 1.6693549E-01
6.3881310E 00 8.0537382E-01
  250
                           2.0322153E 01
  300
                           2.0778784E 01
                                             1.8318494E 01
                                                               1.2628895E 00
  350
        1.3256765E 21
                          2.1122437E 01
                                             4.0476848E 01 1.6072067E CO
  430
        2.4593707E 21
4.0422447E 21
                          2.1390824E 01
                                             7.5180764E 01
                                                                1.8761067E 00
  450
                          2.16066228 01
                                             1.2368367E 02 2.J923124E 00
  500
        8.5782076E 21
                                             2.6283638E 02 2.4196855E 00
                          2.1933396E 01
  600
        1.4815636E 22
2.2510772E 22
3.1408150E 22
4.1283091E 22
1.0002715E 23
                                             4.5438527E 02
6.9086890E 02
9.6443856E 02
1.2681789E 03
3.0762360E 03
                          2.2170720E 01
2.2352390E 01
2.2497042E 01
2.2615772E 01
                                                                 2.6574243E 00
  700
                                                                 2.8393957E 00
  800
                                                                 2.9842746E 00
  900
                                                                 3.1031806E 00
 1000
                          2.3000118E 01
                                                                 3.4880197E GO
 1530
                          2.3222685E 01
         1.6698809E 23
                                              5.1382000E 03
 2000
                                                                 3.7108110F 00
         2.3765996E 23
                          2.3375956E 01
                                             7.3148843E 33
                                                                 3.8642075E 00
 2500
        3.1028542E 23
                          2.3491761E 01
                                             9.5519741E 03
                                                                3.9800932E 00
 3000
        3.8405754E 23
                           2.3584396E 01
                                             1.1824523E 04 4.0727836E 00
 350ŭ
        4.5855772E 23
                                             1.4119587E 04
                                                               4.1498220E 00
                           2.3661394E 01
 4000
        5.3354819E 23
6.0888422E 23
7.6025141E 23
                           2.3727174E 01
2.3784534E 01
                                             1.6429814E 04
1.8750727E 04
                                                                4.21563275 00
 4500
 5000
                                                                 4.2730181E 00
                           2.3880957E 01
                                              2.3414054E 04
                                                               4.3694767E 00
 6000
        9.1221734E 23
                          2.3960098E 01
                                              2.8095899E 04
                                                                 4.448643DE 00
 7000
        1.7645590E 24
1.2171517E 24
                          2.4027170E 01
 8000
                                             3.2789364E 04
                                                                 4.5157330E 00
                                             3.7490596E 04
 9000
                          2.4085345E J1
                                                                 4.5739224E 00
       1.3699205E 24
                          2.4136695E 01
                                             4.2197273E 04
10000
                                                               4.6252844E 00
  293
       1.6297991F 2C
                          2.0212134E 01
                                             4.9561248E 00
                                                               6.9514224E-01
  295
        1.8538182E 2C
                          2.0268067E 01
                                             5.6387571E 00
                                                                7.5118339E-01
                                             6.2327449E 00
        2.04870382 20
2.0996794E 2C
2.1515753E 2C
                          2.0311479E 01
2.0322153E 01
  299
                                                                7.9467935E-U1
                                             6.3881310E 00
  300
                                                                8.0537382E-01
                          2.0332757E 01
                                             6.54633J1E 00
                                                                8.1599790E-01
  30 L
        2.3685476E 26
                          2.0374482E 01
                                             7.2078243E 00
  305
                                                                8.5780419E-01
                          2.0425139E 01
  310
        2.6615782E 2C
                                             8.1013870E UO
                                                                9.0855938E-01
2043
        1.7253845ē 23
                          2.3236386E 01
                                             5.3091381E 03
                                                               3.7250240E 00
                          2.3464294E 01
        2.9126922E 23
2873
                                             8.9662005E J3
                                                               3.9526085E 00
        6.9961491E 23
                          2.3844859E 01
560)
                                             2.1545951E 04
                                                               4.3333657E 00
        7.75425888 23
6100
                         2.3889540E 01
                                            2.3881554E 04
                                                               4.3780626E 00
```

Blackbody Quantum Radiance ${\rm Q}_{\rm O,\Delta\lambda}$ and Radiance ${\rm N}_{\rm O,\Delta\lambda}$ Spectral interval $-7.0 {\rm Lm}$ to $8.0 {\rm Lm}$

T	Qo,Δλ	Log ₁₀ Qo,Δλ		$N_{O,\Delta\lambda}$		Log_{10} $N_{0,\Delta\lambda}$
°K	Quanta s ⁻¹ m ⁻² sı	r ⁻¹		$W m^{-2} sr^{-1}$		
50	8.1588790E		00			-1.2681051E 01
100		15 1.5C05806E	01	2.6332818E-	-	-4.5795027E 00
150		17 1.7740598E	01	1.4416102E-		-1.8411522E 00
200		19 1.9116813E	01	3.4435283E-		-4.6299635E-01
250		19 1.9945710E	01	2.3286332E	30	3.6710108E-01
300		20 2.0500011E 2J 2.0897295E	01		00	9.2221111E-01
35J 400			01	2.0896436E 4.1666632E	01	1.3200716E 00
450		21 2.1196582E 21 2.1430723E	01 01		01	1.6197884E 00 1.8542597E 00
500		21 2.16194236	01		02	2.0432195E 00
633		21 2.1906351E	01		02	2.3305273E 00
700		22 2.2116086E	01	3.4715446E	02	2.5405228E 00
80ú		22 2.2277720E	01		Ú2	2.7023460E JO
900		22 2.2407269E	01	6.79260 5E	92	2.8320365E CO
1000		22 2.2514266E	01		02	2.9391437E 00
1500	7.3390052E	22 2.2865637E	01	1.9535414E	03	3.2908226E 00
2000	1.1835082E	23 2.3073171E	01	3.1513523E	03	3.4984970E 00
2500	1.6517517E	23 2.3217945E	01	4.3989577E	03	3.6433498E 00
3007	2.1296813E	23 2.3328314E	01	5.6724470E	03	3.7537705E 00
3500		23 2.3417182E	01		03	3.8426734E 00
4000		23 2.3491419E	31		03	3.9169356E 00
4500		23 2,3555089E	01		03	3.9806256E 00
5000		23 2.3610786E	01		04	4.0363390E 00
6000		23 2.3704755E	01		04	4.1303305E 00
7000		23 2.3782173E	01		04	4.2077650E 00
8000		23 2.3847969E	01		04	4.2735728E 00
9000		23 2.3905162E	01		04	4.3307748E 00
10033	9.03094226	23 2.3955733E	01	2.4063187E	04	4.3813532E 00
290	2.5369620E	20 2.0404314E	01	6.7046209E	00	8.2637422E-01
295	2.8376953E	20 2.0452966E	01	7.5006169E	00	8.7509698E-01
299	3.0954716°	2C 2.0490727E	01	8.1830103E	00	9.1291311E-01
300	3.162360CE	2C 2.0500011E	01	8.3600931E	00	9.2221111E-01
301	3.23C2394E	2C 2.0509234E	01	8.5398053E	22	9.3144796E-C1
305	3.51179928			9.2852975E		9.6779583E-01
310	3.8868242E			1.0278393E		1.0119252E 00
2040	1.22045225			3.2497833E		3.5118544E 00
2873	2.0047606E			5.3395787E		3.7275070E 00
5600	4.6722682E			1.2447857E		4.0950950E 00
6100	5.16581935	23 2.3713139E	01	1.3763105E	04	4.1387165E CO

Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$ Spectral interval 8.0 μ m to 9.0 μ m

```
Logio No, DA
                                                               Log<sub>10</sub> Qo, Δλ
                                                                                                                        N_{O,\Delta\lambda}
                              Q_{O,\Delta\lambda}
                                                                                                                   W m^{-2} sr^{-1}
      °K Quanta s<sup>-1</sup>m<sup>-2</sup>sr<sup>-1</sup>
        50 3.4783295E 08 8.5413709E 00 7.9113210E-12 -1.1101751E 01
     3.4783295E 08 8.5413709E 00 7.9113210E-12 -1.1101751E 01
100 5.5202609E 15 1.5741960E 01 1.2735520E-04 -3.8949834E 00
150 1.4710714E 18 1.8167634E 01 3.4141998E-02 -1.4667111E 00
200 2.4330626E 19 1.9386153E 01 5.6647C10E-01 -2.4682301E-01
250 1.3167173E 20 2.0119492E 01 3.0714978E 00 4.8735021E-01
300 4.0733582E 2C 2.0609953E 01 9.5140754E 00 9.7836659E-01
350 9.1588694E 20 2.0961842E 01 2.1411637E 01 1.3306499E 00
400 1.6881886E 21 2.1227421E 01 3.9493011E 01 1.5965203E C0
  400 1.6881886E 21 2.12274Z1E 01

450 2.7271388E 21 2.1435707E 01

500 4.0184846E 21 2.1604062E 01

600 7.2656180E 21 2.186127ZE 01

700 1.1234846E 22 2.2050567E 01

800 1.5755080E 22 2.2197420E 01

900 2.0694495E 22 2.2315855E 01

1000 2.5955490E 22 2.2414229E 01

1500 5.5127355E 22 2.2741367E 01

2000 8.6659381E 22 2.2937815E 01

2500 1.1920599E 23 2.3076298E 01
                                                                                                           6.3830609E 01 1.8050290E 00
                                                                                                           9.4093238E 01 1.9735584E 00
                                                                                                           1.7022455E 02 2.2310222E 00
                                                                                                          2.6332392E 02 2.4204904E 00
3.6937625E 02 2.5674690E 00
4.8528524E 02 2.6859971E 00
6.0875741E 02 2.7844443E 00
1.2935596E 03 3.1117865E 00
                                                                                                            2.0338941E 03 3.3083284E 00
                  1.1920599E 23 2.3076298E 01
                                                                                                            2.7981044E 03 3.4468639E 00
   2500
                                                                                                            3.5746195E 03 3.5532298E 00
4.3582767E 03 3.6393148E 00
  3000 1.5227544E 23 2.3182630E 01
3500 1.8564835E 23 2.3268691E 01
                                                                                                            5.1464391E 03 3.7115069E 00
5:9376224E J3 3.7736126E 00
                 2.1921268E 23 2.3340866E 01
  4000
  4500 2.5290537E 23 2.3402958E 01

5000 2.8668827E 23 2.3457410E 01

6000 3.5443510E 23 2.3549536E 01

7000 4.2233752E 23 2.3625659E 01

8000 4.9033743E 23 2.3690495E 01
                                                                                                                                                          3.8280751E 00
                                                                                                           6.7309290E 03 3.8280751E 00
8.3218027E 03 3.9202175E 00
9.9163389E 03 3.9963514E 00
1.1513169E 04 4.0611949E 00
1.3111532E 04 4.11765355 00
9000 5.5840241E 23 2.3746947E 01 10000 6.2651300E 23 2.3796930E 01
                                                                                                           1.4710967E 04 4.1676412E 00
  250 3.3515987ē 20 2.0525252E 01 7.8265489E 00 8.9357030E-01 295 3.7009319E 2C 2.0568311E 01 8.6432695E 00 9.3667805E-01 299 3.9970012E 2C 2.0601734E 01 9.33553C0E 00 9.7013898E-01 300 4.0733582E 20 2.0609953E 01 9.5140754E 00 9.7836659E-01 301 4.1506590E 2C 2.0618117E 01 9.6948310E 00 9.8654025E-01 305 4.4693734E 20 2.065C247E 01 1.0440134E 01 1.0187061E 00 310 4.8894361E 2C 2.0689259E 01 1.1422525E 01 1.0577621E 00 2040 8.9235181E 22 2.2950536E 01 2.0943736E 03 3.3210542E 00 2077 1.43461827E 23 2.3157381E 01 3.3718911E 03 3.5779734E 00
   2870 1.4364192E 23 2.3157281E 01 3.3718911E 03 3.5278736E 00
  5600 3.2731305E 23 2.3514963E 01 7.6849046E 03 3.8856385E 00 6100 3.6121959E 23 2.3557771E 01 8.4811212E 03 3.9284533E 00
```

Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$ Spectral interval 9.0 mm to 10.0 mm

Т	Q0, AA		Log ₁₀ Qo,Δλ		$N_{O,\Delta\lambda}$		Log ₁₀ No,Δλ
°K	Quanta $s^{-1}m^{-2}s$	r ⁻¹			$W m^{-2} sr^{-1}$		
50 100	6.7493587E 2.0347369E	09 16	9.8292626E 1.6308508E	00	1.3829950E- 4.2170113E-		-9.8591795E 00 -3.3749952E 00
150	3.0616221E	18	1.8485952E	31	6.3734111E-		-1.1956281E 00
200	3.7892972E	19	1.9578559E	21	7.9062769E-		-1.0202798E-01
250	1.72190775	20	3.0236010E	01	3.5976797E		5.5602250E-01
300	4.7432041E	2 C	2.0676072E	31	9.9193053E	00	9.9648125E-01
350	9.8254068E	20	2.0992350E	01	2.0560762E	01	1.3130392E 00
400	1.7046869E	21	2.1231645E	01	3.5689343E	01	1.5525386E 00
450	2.6295176E	21	2.1419876E	01	5.5071391E	01	1.7409261E CC
500	3.7369743E	21	2.1572520E	01	7.8287413E	01	1.8936920E 00
600	6.4104981E	21	2.1806892E		1.3435077E	0?	2.1282432E 00
700	9.5619621E	21	2.1980547E	01	2.0045455F	02	2.30201605 00
800	1.3055256E	22	2.2116118E	01	2.7395146E	02	2.4376736E 00
933	1.6829737E	22	2.2226077E	01	3.5293777E	02	2.5476982E 00
1000	2.0791154E	22	2.2317879E	01	4.3606363E	02	2.6395499E 00
1500	4.2317446E	22	2.2626520E	01	8.8783594E	02	2.9483328E 00
2000	6.5233558E	22	2.2814471E	01	1.3688303E	03	3-1363496E 00
2500 3000	8.8738738E 1.1254566E	22	2.2948113E 2.3051329E	01	1.8622117E	03	3.2700291E 00
3500	1.3652718E	23	2.3135219E	01	2.3619383E 2.8653366E	03	3.3732686E 00 3.4571757E 00
4000	1.6061862E	23	2.3205796E	01	3.3710455E	03	3.4571757E 00 3.5277647E 00
4503	1.8478369E	23	2.3266664E	01	3.8783047E	03	3.5886420E 00
5000	2.0900045E	23	2.3320147E	01	4.3866502E	03	3.6421330E 00
6000	2.5753767E	23	2.34108415	01	5.4055216E	03	3.7329376E 00
7000	3.06163955	23	2.3485954E	01	6.4262663E	03	3.8079588E 00
8000	3.5484601E	23	2.3550040E	01	7.4481837E	03	3.8720504E 00
9000	4.0356529E	23	2.3605914E	01	8.4708838E	03	3.9279287E 00
10000	4.5231065E	23	2.3655437E	01	9.4941326E	03	3.9774553E 00
290	3.9813378E	2 C	2.0600029E	01	8.3247352E		9.2037042E-01
295	4.3519466E	20	2.0638683E	01	9.1C03811E	00	9.5905958E-01
299	4.6632896E	2 C	2.0668692E	01	9.7520348E	00	9.8909525E-01
300			2.0676072E		9.9193053E		9.9648125E-01
301		20	2.0683403E		1.C089326E		1.00381918 00
305	5.1553316E	26	2.0712256E	01	1.0781975E		1.0326983E 00
310	5.58851875	2¢	2.J747297E	01	1.1688792E 1.4079610E	01	1.0677696E 00
2040	6.7097811E 1.0633545E	22	2.2826738E 2.3026678E	01	2.2315801E	03 03	3.1485707E 00 3.3486125E 00
2870 5600	2.38109435	23	2.3376777E		4.9976923E		2.6987695E 00
6100	2.6239701E	23	2.3418959E		5.5075269E	33	3.7409567E 00
0133	2.02371016	6)	C + J 7 4 0 7 J 7 E	V.	7.70172076	U J	3114073016 00

Blackbody Ouantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$ Spectral interval -10.0um to 11.0µm

T	Qο, Δλ	_1	Log ₁₀ Qo,Δλ		$N_{0,\Delta\lambda}$ W m ⁻² sr ⁻¹	$Log_{10} N_{0,\Delta\lambda}$
°K	Quanta $s^{-1}m^{-2}s$	ir ⁻¹			W m 'sr '	
50	7.3789499E	16	1.0867995E	01	1.3748475E-0	
100	5.6661599E	16	1.6753289E	01	1.0652835E-0	
150	5.3399567E	18	1.8727538E	01	1.0073169E-0	
203	5.21873186	19	1.9717565E	31	9.8612806E-0	
250	2.0582934E	20	2.J313507E	01	3.8933091E 0	
30)	5.1636872E	20	2.0712960E	01	9.7737931E 0	
350 400	1.0016436E	21	2.1000713E 2.1219062E	01	1.8967952E 0 3.1370297E 0	
450	2.46253236	21	2.1391382E	01	4.66607298 0	
500	3.4009712E	21	2.1531603E	01		1 1.8092606E 00
600	5.597280CE	21	2.1747977E	01		2 2.J25762CE CO
703	8.1159964E	21	2.1909342E	01		2 2.1872135E 00
800	1.08656685	22	2.2036056E	01		2 2.3139905E 00
903	1.3783675E	22	2.2139365E	01		2 2.4173460E 00
1000	1.58269816	22	2.2226006E	01	3.1917105E 0	2 2.5049235E 00
1500	3.3120556E	22	2.2520097E	01	6.2837284E 0	2 2.7982174E 00
2000	5.0273257E	22	2.2701337E	01		2 2.9795042E 00
250)	6.7786341E	22	2.2831142E	91		3 3.1093364E 00
3000	8.54832218	22	2.2931881E	31		3 3.2100927E 00
3500	1.03286215	23	2.30140425	31		3 3.2922663E 00
4000	1.2115590E	23	2.3083344E	01		3 3.3615776E 00
4500	1.3907025E	23	2.3143234E	01		3 3.4214742E 00
5000 6000	1.5701593E 1.9297009E	23	2.3195944E	01		3 3.4741891E 00 3 3.5637435E 00
7000	2.2897818E	23	2.3285490E 2.3359794E	01 01		3 3.5637435E 00 3 3.6380534E 00
8000	2.6502003E	23	2.3423279E	01		3 3.70154235 00
9000	3.0108441E	23	2.3478688E	01		3 3.75695515 00
10000	3.3716456E		2.3527842E	01		3 3.8061114E 00
				-		
293	4.4042847E	2 C	2.0643875E	01	9.3354436E (00 9.2092872E-01
295	4.77517145	20	2.C678989E	01		00 9.5606769E-01
299	5.08457156	20	2.0706254E	01		03 9.8335274E-01
300	5.1636872E	2 C	2.0712960E	01		00 9.9006314E-01
301	5.2435097E	2 C	2.0719622E	01	9.9249902E	00 9.9673009E-01
305	5.5698706E	20	2.0745845E	01		1.0229720E 00
310	5.9937364E	2 C	2.0777698E	01		1.0548473E 00
2040	5.1664441E	22	2.2713192E	21		2.9913616E 00
2870	8.0869617E	22	2.2907795E	01		3.1859932E 00
5600	1.7858034E	23	2.3251834E	01	3.3890993E	
6100	1.965689CE	23	2.3293515E	01	3.7305170E	3.5717690E 00

Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$ Spectral interval 11.0µm to 12.0µm

1	Qo, $\Delta\lambda$		$Log_{10} Q_{0,\Delta\lambda}$		Νο,Δλ		Log ₁₀ .lo	,Δλ
°K	Quanta $s^{-1}m^{-2}s$	r ⁻¹			$W m^{-2} sr^{-1}$			
50	5.2459749E		.1719826E	01	8.9568077E-			
100	1.2830794E		.7108253£	01	2.2064496E-		-2.656306	
150	8.1924282E	18 1	.8913413E	01	1.4124420E-	-01 -	-8.500293	9E-01
200	6.5831988E		.9818437E	31	1.1364737E	S	5.555939	
250	2.3103234E	20 2	.0363673E	01	3.9914545E	00	6.011311	8E-01
300	5.3683463E	-	.0729840E	01	9.2793728E	00	9.675186	
350	9.87J4895E		.0994338E	01	1.7067493E	01	1.232169	
400	1.5692362E		.1195688E	01	2.7141312E	01	1.433630	
450	2.2653667E		.1355138E	01	3.9189094E	01	1.593165	
500	3,0572918E		.1485337E	01	5.2896758E	01	1.723429	
600	4.8665857E		.1687224E	01	8.4219172E	01	1.925411	
700	6.8978231E		.1838712E	01	1.1938863E	02	2.076962	
605	9.0847284E		1.1958312E	01	1.5725669E	02	2.196609	
900	1.1383506E		.2056276E	01	1.9706431E	02	2.294608	
1000	1.3764739E		.2138768E	01	2.3830158E	02	2.377126	
1500			.2421134£	01	4.5663462E	02	2.659568	
2000	3.9531272E		.2596941E	91	6.8455988E	02	2.835411	
2500			.2723631E	01	9.1647770E	02	2.962121	
3000				01	1.1504251E	03	3.060858	
3500	8.0003024E			01	1.3855422E	03	3.141619	
4000	9.3619950E			01	1.6213940E	03	3.209888	
4500	1.0726521E			01	1.8577371E	03	3.268984	
5000	1.2093035E		•	01	2.0944250E	03	3.321064	
6000	1.4830044E				2.5684914E	03	3.409678	
7000	1.7570473E			01	3.0431507E	03	3.483323	
8000			.3307775E		3.5181810E	03	3.546318	
9300				01	3.9934589E	03	3.601349	
10000	2.5802032E	23 2	.3411654E	01	4.4689102E	03	3.650201	6E 00
290	4.6392246E	2C 2	. 666445E	01	8.0183684E	00	9.040860	16-01
295				01	8 6361989E	00	9.363226	
299	5.29280225			01	9.1497159E	00	9.613601	
300				01	9.2793728E	00	9.675186	_
							9.736375	
301				01	9.4110389E 9.9477717E	00	9.130313	
3J5				01 01	1.0641250E	01	1.026992	
310			_	01	7.03C0425E	02	2.846958	
2040				01	1.0894619E	03	3.037212	
2870					2.3787759E	03	3.376353	-
5600				01				
6110	1.5103961E	23 2	.3179091E	01	2.6159354E	03	3.417627	UE 00

Blackbody Quantum Radiance ${\rm Q}_{0,\Delta\lambda}$ and Radiance ${\rm N}_{0,\Delta\lambda}$ Spectral interval $~12.0\mu m$ to $13.0\mu m$

T	Qo,Δλ		Log ₁₀ Qo,Δλ		$N_{O,\Delta\lambda}$		Log_{10} $N_{O,\Delta\lambda}$
°K	Quanta s m-2s	r^{-1}			$W m^{-2} sr^{-1}$		
50	2.6876996E	12	1.2428248E	01	4.2219861E-	-08	-7.3744832E 00
100	2.4855499E	17	1.7395423E	01			-2.4048149E 00
150	1.1425112E	19	1.9057860E	01	1.8134227E-		-7.4150096E-01
200	7.7880536E	19	1.9891429E	01	1.2373908E		9.2506883E-02
250	2.4789316E	20	2.0394264E	01	3.9409640E	00	5,9560246E-01
300	5.4044761E	20	2.0732754E	01	8.5952913E	22	9.3426059E-01
350	9.5061802E	2 C	2.0978006E	01	1.5122731E	01	1.1796302E 00
400	1.4633198E	21	2.1165339E	01	2.3283517E	91	1.3670486E 00
450	2.06160945	21	2.1314206E	01	3.2808007E	01	1.5159799E 00
500	2.7300958E	21	2.1436178E	01	4.3451140E	01	1.6380012E 00
600	4.2285551E	21	2.1626192E	01	6.7311101E	01	1.8280871E 00
700	5.8828858E	21	2.1769590E	01	9.3655736E	01	1.9715344E 00
800	7.5447376E	21	2.1883362E	01	1.2171434E	02	2.0853418E 00
900	9.4830121E	21	2.1976946E	01	1.5099130E	32	2.1789519E 00
1000	1.1377163E	22	2.2056035E	01	1.8115943E	02	2.2580610E 00
1500	2 1 318 6285	22	2.2328759E	01	3.3950309E	02	2.5308438E 00
2000	3.1628 735	22	2.2500082E	01	5.0372562E	02	2.7021941E 00
2500	4.20914835	22	2.2624194E	01	6.7038035E	02	2.8263213E 00
3000	5.2631 887	22	2.2721246E	01	8.3826832E	02	2.9233831E 00
3500	6.3216027d	22	2.2800827E	01	1.0068661E	03	3.00297175 00
4000	7.3828506E	22	2.2868224E	01	1.1759093E	03	3.0703739E 00
4500	8.4459560E	22	2.2926649E	01	1.3452504E	03	3.1288032E 00
5000	9,511,0126	22	2.2978198E	01	1.5148003E	33	3.1803554E 00
6000	65E	23	2.3066022E	01	1.8543185E	03	3.2681844E 00
7000	1 >591E	23	2.3139110E	01	2.1941957E	03	3.3412754E 00
8000	1.5)10725E	23	2.3201690E	01	2.5342976E	03	3.4038576E CO
9000	1.80467998	23	2.3256400E	01	2.8745492E	03	3.4585698E 00
10000	2.0183531E	23	2.3304997E	01	3.2149059E	03	3.5071683E 00
• • •							
290	4.7214905E	20		01	7.5085715E	00	8.7555732E-01
295	5.0570025E	20	2.0703893E	21	8.C424068E	00	9.0538603E-01
299	5.3340303E	20	2.J727055E	01	8.4831996E	00	9.2855968E-C1
300	5.4044761E	20	2.0732754E	01	8.5952913E	00	9.3426059E-01
301	5.47539545	2 C	2.0738415E	01	8.7081369E	00	9.3992524E-01
305	5.763787Cc	20	2.0760708E	01	9.16702775	00	9.62228556-01
310	6.1348023E	2.0	2.0787801E	01	9.7574053E	00	9.8933434E-01
2040	3.2461632E 4.9885869E	22	2.2511370E	01	5.1699166E 7.9453433E	02	2.7134835E 00
2870		22	2.2697977E	01		02	2.9001127E 00
5600	1.0788938E		2.3032978E	01	1.7184574E		3.2351388F 00
6100	(*10001005	23	2.3073907E	01	1.8882930E	03	3.2760694 00

Blackbody Quantum Radiance Q $_{0,\Delta\lambda}$ and Radiance N $_{0,\Delta\lambda}$ Spectral interval 13.0 μm to 14.0 μm

T	Qo,Δλ	Log ₁₀ Qo,Δλ	$N_{O,\Delta\lambda}$	Log ₁₀ No,Δλ
°K	Quanta $s^{-1}m^{-2}s$	r ⁻¹	$W m^{-2} sr^{-1}$	
5 Ü		13 1.3024525E	01 1.5460541E-0	
100		17 1.7630387E	01 6.2676466E-0	
150		19 1.9170874E	01 2.1791592E-0	
200		19 1.9943638E	01 1.2924123E 0	
250		2C 2.0410587E		5.7855503E-01
300		20 2.0725771E		0 9.9387170E-01
350		2C 2.0954887E		1.1230787E 00
400		21 2.1130503E		1.2987612E 30
45)		21 2.1270541E	· - · · · · · · · · · · · · · · · · · ·	1 1.4388492E DO
500		21 2.13856588		1 1.55400485 00
600		21 2.1565788E		1 1.7341904E 00
730		21 2.1702453E		1 1.8708940E 00
800		21 2.1811373E		1 1.9798407E 00
900		21 2.1901306E		2 2.0697945E 00
1000		21 2.1977555E		2 2.1460600E 00
1500		22 2.22422198		2 2.4107693E 00
2005 2500		22 2.2409780E		2 2.5783510E 00
3000		22 2.2531722E 22 2.2627365E		2 2.7003057E CO 2 2.7959565E OO
350ú		22 2.2705959E		2 2.7959565E 00 2 2.8745558E 00
4000		22 2.2772625E		2 2.94122615 00
450j		22 2.2830488E		2 4.9990922E 00
5000		22 2.2881591E		3 3.0501977E 00
6073		22 2.2968 7 52E		3 3.13736285 00
7000		23 2.3C41371E		3 3.2099844E 00
8200		23 2.3103602E		3 3.2722171E 00
9300		23 2.3158042E		3 3.3266589E 00
10000		23 2.3206424E		3 3.37504215 60
29J	4.6898226:	2C 2.0671064E	01 6.9046474E S	0 8.3914150E-01
295		20 2.J698858E		0 8.6694694E-U1
299		20 2.0729457E		0 8.8855506E-01
300		2C 2.3725771E	01 7.8319824E 0	
301			21 7.9278402E 3	
3)5		2C 2.0751849E		9.19959685-01
310		26 2.3777131E		0 9.4525188E-J1
2040		22 2.2420852E		2 2.5894245E 00
2870		22 2.2604414E		2 2.773003UE 00
5600		22 2.2935944E		3 3.10455355 00
6100	9.47508238	22 2.2976583E	01 1.3969916E 0	3 3.1451938E JO

Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$ Spectral interval 14.0µm to 15.0µm

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Log_{10} Q_{0,\Delta\lambda}
                                                                                                             Logio No, Di
                                                                                   N_{O,\Delta\lambda}
                       Q_{O,\Delta\lambda}
      ^{\circ}K Quanta s^{-1}m^{-2}sr^{-1}
                                                                                W m^{-2} sr^{-1}
             3.4014457E 13 1.3531664E 01 4.6341473E-07 -6.3340302E 00
      50
           3.4014457E 15
6.675050CE 17
1.8181199E 19
9.5521908E 19
2.6083136E 2C
5.1488150E 20
8.4554393E 2C
                                           1.7824454E 01 9.1287271E-03 -2.0395898E 00
1.9259622E 01 2.4896747E-01 -6.0385740E-01
1.9980103E 01 1.3088894E 00 1.1690295E-01
2.0416360E 01 3.5753906E 00 5.5332350E-01
2.0711707E 01 7.0595414E 00 8.4877650E-01
    100
    150
    200
    250
    300
                                             2.0927136E 01
2.1092839E 01
                                                                            1.1595193E 01 1.0642780E 00
    350
   430 1.2383361E 21
450 1.6804186E 21
500 2.1614647E 21
                                                                            1.6983721E 01 1.2300329E 00
                                             2.1225417E 01
                                                                            2.3048957E 01 1.3626513E 00
                                             2.1334748E 01
2.1506538E 01
                                                                           2.9649169E 01 1.4720125E 00
 600 3.2102422E 21 2.1506538E 01

700 4.3403137E 21 2.1637521E 01

800 5.5251225E 21 2.1742342E 01

900 6.7482224E 21 2.1829189E 01

1000 7.9990222E 21 2.1903037E 01

1560 1.4483224E 22 2.2160865E 01

2000 2.1145795E 22 2.2325224E 01
                                                                           4.4039894E 01 1.6438463E 00
                                                                           5.9546962E 01
7.5805734E 01
9.2590374E 01
                                                                                                          1.7748596E 00
                                                                                                         1.8797021E CO
                                                                                                          1.9665658E JO
                                                                            1.0975544E 02
                                                                                                          2.0404261E 00
                                                                           1.9874242E 02
                                                                                                        2.2982906E CO
  2000 2.11457955 22 2.2325224E 01
                                                                           2.9017922E 02
                                                                                                        2.4626663E 00
 2500 2.7881526E 22 2.2445317E 01 3000 3.4654220E 22 2.2539756E 01
                                                                           3.8262087E 02
                                                                                                        2.5827687E 00
                                                                         4.7557018E 02
                                                                                                       2.6772147E 00
  3500 4.1448148E 22 2.2617505E 01
                                                                           5.6881115E 02
                                                                                                          2.7549681E 00
 4000 4.825539CE 22 2.2683546E 01

4500 5.5071525E 22 2.2740927E 01

5000 6.1893893E 22 2.2791648E 01

6000 7.5551113E 22 2.2878241E 01

7000 8.9219041E 22 2.2950457E 01

8000 1.0289367E 23 2.3012389E 01
                                                                           6.6223499E 02
7.5578098E 02
8.4941257E 02
1.3368472E 03
1.2244290E 03
                                                                                                        2.8210121E 00
2.8783960E 00
2.9291187E 00
3.0157148E 00
                                                                                                          3.0879336E 00
                                                                           1.4121027E 03 3.1498663E 00
9000 1.1657276E 23 2.3066597E 01 10000 1.3025498E 23 2.3114794E 01
                                                                           1.5998378E 03
                                                                                                         3.2040760E 00
                                                                           1.7876159E 03
                                                                                                          3.2522742E 00
   29J 4.574780CE 2C 2.0660379E 01
                                                                           6.2722232E 00 7.9742150E-01
   295 4.8578868E 2C 2.0686447E 01
                                                                           6.6605149E UO 8.2350783E-C1
   299 5.090010PE 2C 2.0706719E 01
                                                                           6.9788870E 00 8.4378617E-C1
   300 5.148815CE 20 2.0711707E 01
                                                                           7.0595414E 00
                                                                                                         8.48776505-01
 300 5.148815CE 20 2.0711707E 01 7.0595414E 00 8.4877850E=01 301 5.2079263E 2C 2.0716665E 01 7.1406170E 00 8.5373574E=01 305 5.4474165E 2C 2.0736191E 01 7.4690995E 00 8.7326825E=01 31J 5.7535417E 2C 2.0759935E 01 7.8889842E 00 8.9702109E=01 2040 2.1682662E 2Z 2.2336113E 01 2.9754720E 02 2.4735559E 00 2870 3.2890832E 2Z 2.2517075E 01 4.5136919E 02 2.6545319E 00 5600 7.0086620E 2Z 2.2845635E 01 9.6185131E 02 2.9831080E 00 6100 7.6917510E 2Z 2.2880025E 01 1.3556030E 03 3.0234994E 00
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Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$ Spectral interval $~15.0\mu m$ to $20.0\mu m$

T	Qo,Δλ	Log ₁₀ Qo,Δλ		$N_{0,\Delta\lambda}$	Log_{10} $N_{O,\Delta\lambda}$
°K	Quanta s ⁻¹ m ⁻² sr	-1		$W m^{-2} sr^{-1}$	
50	3.3261217E 1		01	3.5498410E-0)5 -4.4497911E 00
100		8 1.8941820E	01	9.7211937E-0	
150		0 2.0119109E	01		00 1.7263931E-01
200		0 2.0720280E	01		00 7.7772923E-01
250		1 2.1089551E	01		1.1492924E 00
300		1 2.1342851E	01		1.4040621E 00
350		2.15298276	01		1.5920447E 00
400		2.1675188E	01		1.7381312E 00
450 500		2.1792599E 2.1890238E	01		01 1.8560868E 00 01 1.9541467E 00
600		2 2.2045272E	01		2 2.1097887E 00
700		2 2.2164894E	01		2 2.2298252E 00
800		2 2.2261541E	01		2 2.3267711E 00
900		2 2.2342242E	01		2 2.4076976E 00
1000		2 2.2411307E	01		2 2.4769394E 00
1500	4.5240429E 2	2 2.2655527E	01	5.2682038E	2 2.7216626E 00
2000	6.5088198E 2	2 2.2813502E	01	7.5836074E (2 2.8798759E 00
2500		2 2.2929901E	01	9.9177405E	2 2.9964128E 00
3000	· ·	2.3021935E	01		3.0885369E 00
3500		3 2.3097994E	01		3.1646591E 00
4000		3 2.3162782E	01		3.2294945E 00
4500		3 2.3219199E	01		3.2859470E 00
5000		3 2.3269153E	THE PLANE	2.1673553E	
6000		2.3354606E	01		3 3.4214261E 00
7000		3 2.3426015E 3 2.3487345E	01		3.4928659E 00 3.5542181E 00
9000		2.3487345E 2.3541088E	01 01		3.5542181E 00 3.6079784E 00
10000		3 2.3588914E	01		3.6558185E 00
	30007,5222	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	••	1102100312	,, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
	•				
290		1 2.1298590E	01		1.3595523E 00
295		1 2.1321059E	01		1.3821487E 00
299		1 2.1338545E	01		1 1.3997324E 00
300			01		1 1.4040621E 00
301 305		1 2.1347131E	01		1 1.4083659E 00
310		2.1363997E 1 2.1384530E	01		1 1.42532628 00
2040		2 2.2824024E	01		1 1.4459720E 00 2 2.8904115E CO
2870		2 2.2999794E	01		2 2.8904115E CO 3 3.0663762E OO
5600		3 2.3322406E	01		3 3.3892109E 00
6100	2.3030181E.2		01		3 3.4291210E 00

Blackbody Quantum Radiance $Q_{0,\Delta\lambda}$ and Radiance $N_{0,\Delta\lambda}$ Spectral interval 20.0µm to 30.0µm

```
Log<sub>10</sub> No,Δλ
                           Log<sub>10</sub> Qo,Δλ
                                                 N_{O,\Delta\lambda}
   Τ
             Q_{O,\Delta\lambda}
       Quanta s^{-1}m^{-2}sr^{-1}
      1.9099873E 17
                         1.7281031E 01
                                            1.4128304E-03 -2.8499100E 00
       4.7406348E 19
                         1.9675836E 01
  100
                                            3.7258089E-01 -4.2877942E-01
        3.300451CE 20
                         2.0518573E 01
  150
                                            2.6587488E 00 4.2467731E-01
  200
        9.0967820E 20
                         2.0958888E 01
                                            7.4171649E 00 8.7023792E-01
       1.7225143E 21
2.6977696E 21
3.7846609E 21
4.9496554E 21
                          2.1236163E 01
2.1431005E 01
2.1578027E 01
  250
                                            1.4141419E 01
                                                               1.1504930E 00
  300
                                             2.2244092E 01
                                                               1.3472147E 00
                                            3.1297888E 01
                                                               1.4955150E 00
  350
                          2.1694575E 01
                                            4.1018718E 01
                                                               1.6129821E 00
  400
                         2.1790335E 01
  450
        6.1707031E 21
                                            5.1219028E 01
                                                               1.7094314E 00
        7.4330319E 21
                         2.1871166E 01
  500
                                            6.1772848E 01
                                                               1.7907976E 00
       1.00439545 22
                         2.2001905E U1
  600
                                            8.3519915E Q1
                                                               1.9223098E 00
                         2.2104883E 01
  700
        1.2731587E 22
                                            1.0612504E 02
                                                               2.0258179E 00
       1.5468638E 22
1.8239282E 22
2.1033755E 22
3.5199667E 22
                         2.2189452E 01
2.2261007E 01
2.2322917E 01
                                            1.2905439E 02
1.5227223E 02
                                                              2.1107728E 00
  600
  900
                                                               2.1826207E 00
                                            1.7569476E 02
2.9447060E 02
 1000
                                                               2.2447588E GO
                         2.2546539E 01
                                                              2.4690420E 00
 1500
        4.9512640E 22
                         2.2694716E 01
                                            4.1451054E Q2
                                                              2.6175356E 00
 2000
       6.3885029E 22
                         2.2805399E 01
 2500
                                            5.3506130E 02
                                                               2.7284035E 00
                         2.2893691E 01
 3000
       7.8287250E 22
                                            6.5586856E 02
                                                               2.8168168E OC
                         2.2967110E 01
 3500
       9.2706553E 22
                                            7.7682270E 02
                                                              2.8903219E 00
       1.0713654E 23
1.2157367E 23
1.3601579E 23
1.6491003E 23
                                            8.9786878E 02
1.0189762E 03
1.1401265E 03
 4000
                          2.3029937E 01
                                                              2.9532129E 00
 4500
                          2.3084840E 01
                                                               3.0081640E 00
                          2.3133589E 01
 5000
                                                              3.0569531E 00
                          2.3217247E 01
                                            1.3825132E 03
 6000
                                                              3.1406693E 00
        1.9381283E 23
                                                              3.2108463E 00
 7003
                          2.3287383E 01
                                            1.6249736E 03
 6000
        2.227210CE 23
                          2.3347761E 01
                                            1.8674800E 03
                                                              3.2712560E 00
 9000
        2.5163274E 23
                          2.3400767E 01
                                            2.1100172E 03
                                                              3.3242860E 00
       2.8054698E 23
10000
                         2.3448006E 01
                                            2.3525758E 03
                                                              3.3715436E 00
                                            2.0536167E 01
                                                              1.3125194E 00
                         2.1396627E 01
  290 2.4924504E 21
                                            2.1385258E 01
                                                              1.3301145E 00
        2.5945382E 21
                         2.1414060E 01
  295
       2.6770338E 21
2.6977696E 21
2.7185494E 21
2.8021030E 21
                         2.1427654E 01
2.1431005E 01
                                            2.20715628 01
                                                              1.3438331E 00
  299
                                            2.22440925 01
                                                              1.3472147E 00
  300
                          2.1434337E 01
                                            2.2416996E 01
                                                              1.3505774E 00
  301
                          2.1447484E 01
                                            2.3112318E 01
                                                              1.3638435E 00
  305
        2.9074989E 21
                          2.1463520E 01
                                            2.3989600E 01
                                                              1.3890230E 00
  310
        5.0660819E 22
                          2.2704672E 01
                                            4.2414074E 02
                                                              2.6275100E 00
 2040
                                            6.2444145E 02
                                                              2.7954918E 00
        7.4540670E 22
                         2.2872393E 01
 2870
                         2.3185686E 01
                                            1.2855475E 03
                                                              3.1090882E 00
       1.5335105E 23
 5600
       1.6779999E 23 2.3224792E 01
                                           1.4067565E 03
                                                              3.1482190E 00
 6100
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13 ABSTRACT	in ight ru		73433			
Rapid calculation of the radiant power and	the quantum	flux emit	ted by a blackbody			
source involving any wavelength interval i	s made possi	ble by the	derivations in this			
paper which introduces the "normalized cum	ulative blac	kbody func	tions" formulated by			
the author. Thus, in contrast to convention radiation temperatures and any wavelength	onal blackbo intorval aro	dy tables,	all different			
can be compiled in one simple table of very	v modest vol	ume The	final expressions			
using these cumulative blackbody functions	are uncompl	icated equ	ations which can be			
solved by slide rule operations or, for his	gher accurac	y, by usin	g a desk calculator.			
Further, the paper introduces an unambiguou	us symbolism	for expre	ssing power and			
quantum flux radiated by a blackbody source	e and for ex	pressing p	erformance factors			
such as conversion yields of broadband rad	lation detec	tors. Als	o equations for			
calculating the difference in power and quantum flux for blackbody sources against a blackbody background are derived. Illustrative examples for typical situations are						
calculated.						
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